UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

SEP 2 1 2015

CERTIFIED MAIL 7009 1680 0000 7669 3455
RETURN RECEIPT REQUESTED

REPLY TO THE ATTENTION OF:

Mr. Richard Daff
Plant Manager
ASK Chemicals, LP
2191 West 110th Street
Cleveland, Ohio 44102

Re: Notice of Violation
Compliance Evaluation Inspection
EPA RCRA ID: OHD076751320

Dear Mr. Daff:

On July 14-15, 2015, representatives of the U.S. Environmental Protection Agency and Ohio Environmental Protection Agency inspected the ASK Chemicals ("ASK") facility located in Cleveland, Ohio. As a large quantity generator of hazardous waste, ASK is subject to the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq. (RCRA). The purpose of the inspection was to evaluate ASK's compliance with certain provisions of RCRA and its implementing regulations related to the generation, treatment and storage of hazardous waste. A copy of the inspection report is enclosed for your reference.

Based on information provided by ASK, on EPA's review of records pertaining to ASK, and on the inspector's observations, EPA has determined that ASK unlawfully stored hazardous waste without a permit or interim status due to the failure to comply with certain conditions for a permit exemption under Ohio Admin. Code § 3745-52-34(A)-(C) [40 C.F.R. § 262.34(a)-(c)]. EPA has identified the permit exemption conditions with which ASK was out of compliance at the time of the inspection in paragraphs 1 – 2, below.

Many of the conditions for a RCRA permit exemption are also independent requirements such as those which apply to permitted and interim status hazardous waste management facilities that treat, store, or dispose of hazardous waste (TSD requirements), and those which apply to all facilities such as land disposal restrictions (LDR requirements). When a hazardous waste generator loses its permit exemption due to a failure to comply with an exemption condition incorporated from Ohio Admin. Code chs. 3745-65 to 68, 3745-256, or 3745-270, the generator: (a) becomes an operator of a hazardous waste storage facility; and (b) simultaneously violates the corresponding TSD or LDR requirement. The exemption conditions identified in paragraphs 3-6, below, are also independent TSD or LDR requirements. Accordingly, each failure of ASK to comply with these conditions is also a violation of the corresponding LDR requirement in Ohio Admin. Code 3745-270 [40 C.F.R. Part 268] or TSD requirement in Ohio Admin. Code chs.

3745-65 to 68 or 3745-256 [40 C.F.R. Part 265] (if the facility should have fully complied with the requirements for interim status), or Ohio Admin. Code chs. 3745-54 to 57 and 3745-205 [40 C.F.R. Part 264] (if the facility should have been permitted).

Lastly, EPA has also determined that ASK violated RCRA requirements related to universal waste, as described in paragraph 7, below.

STORAGE OF HAZARDOUS WASTE WITHOUT A PERMIT OR INTERIM STATUS AND VIOLATIONS OF TSD OR LDR REQUIREMENTS]

At the time of the inspection, ASK was out of compliance with the following large quantity generator permit exemption conditions:

1. Date When Each Period of Accumulation Begins

   Under Ohio Admin. Code § 3745-52-34(A)(2) [40 C.F.R. § 262.34(a)(2)], a large quantity generator must clearly mark each container holding hazardous waste with the date upon which each period of accumulation begins.

   At the time of the inspection, ASK maintained one 55-gallon drum outside of the QC Lab that was not marked with the date upon which each period of accumulation of hazardous waste began.

2. Failure to Label Satellite Containers

   Under Ohio Admin. Code § 3745-52-34(C)(1)(b) [40 C.F.R. § 262.34(c)(1)(ii)], a large quantity generator who accumulates hazardous waste in a satellite container must mark his container either with the words "Hazardous Waste" or with other words that identify the contents of the containers.

   At the time of the inspection, containers of hazardous waste were located in a hood in the Reactor In-Process Lab located in Building 12. One 2-gallon container of waste in this hood was not labeled or marked as above.

The permit exemption conditions identified below in paragraphs 3-6 are also independent TSD or LDR requirements violated by ASK:

3. Use and Management of Containers

   Under Ohio Admin. Code §§ 3745-52-34(A)(1)(i) and 3745-66-74, a large quantity generator must inspect areas where containers are stored, at least once during the period from Sunday to Saturday, looking for leaks and for deterioration caused by corrosion or other factors. The owner or operator must record inspections in an inspection log or summary. Please note, EPA does not have an analogous regulation.

At the time of the inspection, an employee of ASK was conducting inspections in the 90-day waste storage area located in Building 10. These inspections were not consistently conducted once during the period from Sunday to Saturday. See the following gaps in the record:

1/8/14 – 1/21/14;
1/30/14 – 2/19/14;
2/26/14 – 3/20/14;
5/29/14 – 6/11/14;
9/26/14 – 10/7/14;
10/17/14 – 10/30/14 – 11/11/14;
11/19/14 – 12/11/14;
1/30/15 – 2/12/15;
4/8/15 – 4/21/15; and,
5/9/15 – 5/20/15.

In addition, weekly inspections were not being conducted for the drum that is stored outside of the QC Lab in Building 2. ASK was managing this drum as a satellite accumulation container. This drum was neither at nor near the point of generation. Also, waste accumulates in a 2-gallon satellite container in the QC Lab before it is transferred to this 55-gallon drum. Generators may not transfer wastes from one satellite accumulation container to another.

4. Maintenance and Operation of Facility

Under Ohio Admin. Code §§ 3745-52-34(A)(4); 3745-65-31 [40 C.F.R. §§ 262.34(a)(4); 265.31], facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

At the time of the inspection, a small pool of spilled material on the facility floor appeared to have been generated from a surficial crack in a product storage tank (Tank 32) or from piping associated with that tank. This spilled material could not be reused at the site and was described during the inspection as a phenolic resin that may have contained chemicals such as formaldehyde, phenol, and methanol.

5. Contingency Plan

Under Ohio Admin. Code §§ 3745-52-34(A)(4); 3745-65-52(C) [40 C.F.R. §§ 262.34(a)(4); 265.52(c)]. The contingency plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services.

At the time of the inspection, the facility contingency plan did not contain descriptions of the arrangements that have been made with the above authorities.

6. Land Disposal Restrictions (LDR)

Under Ohio Admin. Code §§ 3745-52-34(A)(4); 3745-270-07(A)(2) [40 C.F.R. §§ 262.34(a)(4); 268.7(a)(2)], a generator of hazardous waste which does not meet the treatment standards, and who sends the waste off-site for treatment, must send a one-time written notice to each treatment or storage facility receiving the waste. The notice must include, among other things, the following information:

- Underlying hazardous constituents (UHCs) in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice; and
- Applicable wastewater/non-wastewater category.

LDR notices reviewed during the inspection did not appear to address potential UHCs. The areas designated for UHCs were left blank. Also, on some of the LDR notices reviewed, wastewater/non-wastewater category designations had not been made.

Summary of permit exemption conditions: By failing to comply with the conditions for a permit exemption, above, ASK became an operator of a hazardous waste storage facility, and was required to obtain an Ohio hazardous waste storage permit. ASK failed to apply for such a permit. ASK's failure to apply for and obtain a hazardous waste storage permit violated the requirements of Ohio Admin. Code §§ 3745-50-45(A) and 3745-50-41(A) and (D) [40 C.F.R. §§ 270.1(c), and 270.10(a) and (d)]. Any failure to comply with a permit exemption condition incorporated from Ohio Admin. Code chs. 3745-65 to 68, 3745-256, and 3745-270 [40 C.F.R. Parts 265 and 268] is also an independent violation of the corresponding TSD or LDR requirement.

UNIVERSAL WASTE VIOLATIONS

7. Universal Waste Requirement

Under Ohio Admin. Code § 3745-273-34(E) [40 C.F.R. § 279.15(a) and (b)], a small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated unless the generator proves that such activity is for the sole purpose of accumulating such quantities of universal waste as necessary to facility proper recovery, treatment, or disposal.

At the time of the inspection, according to bills of lading, batteries were last shipped off-site on 3/5/14, more than one year prior to the inspection. The generator did not provide documentation showing that the extended accumulation was necessary.

CONCLUSION

At this time, EPA is not requiring ASK to apply for an Ohio hazardous waste storage permit so long as it immediately establishes compliance with the conditions for a permit exemption outlined in paragraphs 1-6, above.

According to Section 3008(a) of RCRA, EPA may issue an order assessing a civil penalty for any past or current violation, requiring compliance immediately or within a specified time period, or both. Although this letter is not such an order or a request for information under Section 3007 of RCRA, 42 U.S.C. § 6927, we request that you submit a response in writing to us no later than 30 days after receipt of this letter documenting the actions, if any, which you have taken since the inspection to establish compliance with all seven (7) of the above permit exemption conditions and additional requirements. You should submit your response to Brenda Whitney, U.S. EPA, Region 5, 77 West Jackson Boulevard, LR-8J, Chicago, Illinois 60604.

If you have any questions regarding this letter, please contact Ms. Whitney, of my staff, at 312-353-4796 or at whitney.brenda@epa.gov.

Sincerely,

Gary J. Victorine, Chief
RCRA Branch

Enclosure

cc: Robert Almquist – OEPA (Robert.Almquist@epa.ohio.gov
Teri Finfrock - OEPA (Teri.Finfrock@epa.ohio.gov)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

Compliance Evaluation Inspection Report

Date of Inspection:	July 14-15, 2015
Facility Name:	ASK Chemicals, LP
Facility Address:	2191 West 110th Street Cleveland, Ohio 44102
EPA RCRA ID Number:	OHD076751320
Generator Status:	Large Quantity Generator
Facility Contact:	Rich Daff - Plant Manager
U.S. EPA RCRA Inspector:	Brenda Whitney - Environmental Engineer Land and Chemicals Division Resource Conservation and Recovery Act (RCRA) Branch Compliance Section 2
Ohio EPA Inspector:	Richard Almquist - Hazardous Waste Specialist Division of Hazardous Waste Management Northeast District Office

Prepared By: Brenda Whitney
Environmental Engineer

Date Completed: 08/04/2015
Month / Day / Year

Approved By:
Julie Morris
Chief, Compliance Section 2

Date Approved: 8/7/15
Month / Day / Year

Purpose of Inspection

I conducted an unannounced Compliance Evaluation Inspection (CEI) of ASK Chemicals, LP ("ASK" or "Facility") located in Cleveland, Ohio, on July 14-15, 2015. This CEI was an evaluation of ASK's compliance with the RCRA hazardous waste regulations codified in the Ohio Administrative Code and the Code of Federal Regulations. ASK had notified as a large quantity generator. Robert Almquist, a hazardous waste inspector with the Ohio Environmental Protection Agency (OEPA) accompanied me on this inspection.

Participants

The following people were present for part or all of this inspection:

Rich Daff Plant Manager	**ASK**
Steven E. Henson Manager of Operational Safety, Environment, and Compliance, Americas	**ASK**
Randy Helmick Senior Vice President Americas Manufacturing	**ASK**
Robert Almquist Hazardous Waste Specialist	**OEPA**
Brenda Whitney Environmental Engineer	**EPA**

Introduction

Upon arrival at ASK at 8:20 a.m., Mr. Almquist and I signed in at the front desk while Mr. Daff was contacted. Mr. Daff met us at the front entrance and led us to his office for an introductory meeting. We displayed official identification and exchanged business cards. Mr. Daff went through evacuation procedures and explained what safety equipment would be required for access to the site. I delineated the purpose and logistics of the CEI to the ASK representatives, and we discussed ASK's hazardous waste generation sources and management methods. I informed the ASK representatives that I would be taking photographs during the CEI as needed. I provided the following compliance assistance documents; *Onsite Pollution Prevention Assistance (OEPA brochure); P2 Technical Assistance Contacts; and U.S. EPA Small Business Resources*. After being given an overview of the processes and waste generation sources at the Facility we were escorted on a walking tour of the Facility before returning to the conference room to review records. The review was completed July 15, 2015, at which time I held a closing conference with ASK representatives.

Site Description

The following information about ASK is based on the personal observations of the EPA inspector and on representations made during the inspection by the Facility personnel identified above or within the text unless otherwise noted.

ASK is located on seven acres of property and has been in operation at this site since late 2011 or early 2012. Historically, the facility was owned by Archer Daniels Midland in the 1960s. Ashland Chemicals purchased the site in 1966. Ashland Chemicals, along with German partners, formed ASK Chemicals to take over the foundry-chemistry portion of Ashland Chemicals' business. ASK is now owned by a private investment company. Three ASK facilities in North America serve the foundry customer base: Cleveland East, Cleveland West (this facility), and New York. Globally, there are approximately twenty ASK facilities.

Most of the employees at ASK are former Ashland Chemicals employees. Currently 31 employees work in the plant and 24 are managerial. The employees are part of a union. They work three shifts Monday through Friday beginning Sunday night at 11pm and finishing at 11pm Friday night.

As mentioned above, ASK manufactures chemicals that are used in the foundry industry. The main chemical produced here is phenolic resin, which, in part is used to stabilize foundry molds. The phenolic resin ("Part 1") is comprised basically of phenol, paraformaldehyde, and solvents, the main solvent being methanol. The phenol is brought in on rail cars as a solid. The tanker car is heated to over 104F using steam hoses at the site in order to liquefy the phenol, which is off-loaded into tanks 201 and 202. The paraformaldehyde comes in granular solids by rail car and is off-loaded into silo 130. Methanol is brought to the site in tanker trucks and off-loaded into tank 138.

Part 1 is manufactured in Building 12 in two 6,500-gallon reactors (Tanks 301 and 302), constructed in 1989. These reactors have temperature control jackets on the outside as well as coils inside the tanks. The reaction is exothermic, meaning it generates heat. The ingredients used are mainly phenol, paraformaldehyde, and methanol. A catalyst is also required. Once the components are loaded into the reactor, heat is added up to 250F. The heat generated from the exothermic reactions taken place are controlled in part by the evaporation of water into a condenser. The condensed cooler water is returned back to the reactor until the reaction is completed. At the point of completion, all of the water is allowed to boil off of the finished product and the condensate is routed to a receiver tank. This material, called "distillate," contains measurable amounts of each chemical in the formulation including methanol, making it an ignitable hazardous waste. From the receivers the waste is hard-piped to a storage tank, 204. From this tank, the distillate is pumped to a distillation column to recover the methanol from the stream. The methanol is reused as a raw material at the site. The methanol-depleted column bottoms are hard-piped to another storage tank, 107, prior to being piped to the boiler system to be burned for energy recovery. The bottoms still contain phenol and formaldehyde.

Most Part 1 base resins created in either reactor 301 or 302 are piped over to tanks 41, 42, and 43 for storage. One brand of resin called "Novaset" or "Novacure" is pumped separately to tanks

209 and 213 because it does not require any additional solvents or additives. Non-Novaset resins, however, are piped to tanks 55, 56, and 57 where the resin is cold-mixed with various additional solvents and additives to make the customer-specific final product. ASK manufactures hundreds of different products. The finished products are stored in eleven tanks; 31-33, 35, 39, 51-54, 127 and 128. When shipping the finished products off-site, they may use totes, trucks, drums, and occasionally 5-gallon buckets (for samples).

The resin requires a second component ("Part 2") to be mixed with it when coating the sand. This material is also manufactured at this site. Part 2 is an isocyanate consisting of diphenylmethane diisocyanate or "MDI" and various solvents. The MDI is brought to the site either by rail or in tanker trucks and is off-loaded into tanks 151, 152, and 153.

The former reactor building for Part 1 is now part of the current building for manufacturing Part 2, which is the newest building constructed in 1999. The Part 2 process is a cold-blending operation in tanks 222 and 223 mixing MDI with solvents and additives. The tanks are protected with a nitrogen atmosphere because the mixtures are reactive with water. These particular tanks are not cleaned out because the product lines are the same. When finished, a sample is checked at the lab, and the Part 2 product is stored in tanks 47, 88, 89, 94, 95, and 96. The products are sent off-site in tanker trucks, totes, or 55-gallon drums.

When using Part 1 (non-Novaset) and Part 2 to coat the sand, the foundry must also apply a catalyst in order for the resin to react and harden. The catalyst can be chemical amine-based, or it can be heat-based. The amine-based catalyst is used in an "Isocure" process. The amines are brought to this facility either in bulk tanker trucks or in drums. The drums are transshipped to the customers as is. The bulk liquid is offloaded into tanks 137, 139, and 140 and is partitioned into 110-gallon vessels to be distributed to the foundry customer. The vessels have two vents. The first vent is for loading the amines into the cylinder. The second vent is connected to an acidic scrubber system. Wastes generated from the amines have been determined to be non-hazardous.

Another catalyst manufactured at the facility is called "Pep-Set." One blend tank is used for this catalyst. All waste generated from the manufacture of this material is considered hazardous. Clean-outs and samples taken from this tank generate an ignitable hazardous waste.

At a foundry, after coating the sand for the molds with Parts 1 and 2 and forming the shape of the mold for the cast, the amines are diffused as a gas into the mold hardening it immediately. According to Mr. Daff, when the foundry pours the molten metal into molds that have been made with ASK-formulated chemicals, the heat from the molten metal breaks the chemical bonds in the mold, so that the sand can be shaken off, rather than broken off, after the cast has cooled.

The following wastes are typically generated at the ASK facility:

- **Lab Waste** - The QC laboratory generates a solvent waste, which it manages as hazardous.
- **Canister Filter Bags** - Canister filters are used to filter product when it is removed from a reactor or blend tank. Most of the bags in the filters have been determined to be non-hazardous. Novaset resins are run through dedicated filters because they generate a corrosive (basic) hazardous waste.

- **Pep-Set Catalyst** - Wastes related to the manufacture of this material have been determined to be hazardous for ignitability.
- **Distillation Column Bottoms** - This waste stream containing phenol and formaldehyde is burned on-site in a boiler.
- **Expired Chemicals** - Expired chemicals are managed as hazardous wastes if they carry a characteristic or U-listed code.
- **Waste Product** - Includes batches that have hardened or for whatever reason cannot meet specifications and cannot be re-worked. These batches may be ignitable or corrosive and carry U-listings for phenol and/or formaldehyde.
- **Wastewater** - Wastewater is generated in Building 12. When resin builds up on the temperature control coils in the reactors, a caustic boil is used to clean them off. The water is neutralized with acid prior to being discharged to a 3-section wastewater pit in the building. The water is then routed through a carbon unit to remove phenol from the stream to under 50ppm. They do not treat for formaldehyde. The treated water is stored in tank 807 and as sampled daily for pH and phenol prior to discharge. The cooling tower on-site is cleaned/descaled annually. This water is also processed through the pit. Certain units on-site are water-blasted annually for maintenance. This wastewater is also processed in the pit. All of these process wastewaters are discharged through "Discharge Point 1." Tank farm water and site water collect in blind sumps around the facility. This water is tested daily prior to being mixed with stormwater. These combined wastewaters are discharged through "Discharge Point 2."
- **Used Oil** - Generated from fork-lift maintenance. Compressors maintenance is outsourced.
- **Universal Waste** - The facility collects used lamps and batteries for recycling.
- **Product Returns** - ASK accepts product returns from customers under the condition that the material has near 100% chance to be reformulated at the site. The containers of returns are held as a commercial chemical product in a "quarantine area" until the Quality Control (QC) lab can assess the re-workability of the material. If the material cannot be reused, a waste determination is made at that point.

Site Tour

QC Lab (Building 2): Pat Towsley, the Supervisor in this Lab, discussed waste generation in this area. Most of the tests done in the Lab do not generate waste, as the materials are consumed during the tests. Hazardous waste is generated from titrations using chemicals including toluene. Other chemicals used include methanol and isopropanol. The wastes accumulate in a 2-gallon flame-resistant can with a spring operated closing mechanism. This container was closed and labeled as "Solvent Waste." According to Mr. Towsley, this container fills in approximately two or three days. This waste is emptied into a 55-gallon drum located in an area behind the lab, though still inside Building 2 (See, Appendix A: Photograph 1). The container was labeled as "Hazardous Waste," and marked with the waste codes D001, D038 (pyridine) and F005. The container was not marked with a start date of accumulation. ASK was managing this container according to satellite accumulation requirements.

Old Warehouse (Building 2): Part 1 and Part 2 finished product drum storage is located on the north wall of this building. Drums with white tops contain Part 1; drums with red tops contain Part 2. The Pep-Set catalyst reactor was located near the QC Lab. This catalyst is not used in the Isocure process. The ingredients in Pep-Set are cold blended. 5-gallon buckets are used to catch samples out of the reactor. This material is put back into the batch. One 55-gallon drum next to the reactor was labeled as "Hazardous Waste" and marked with the D001 waste number and description of "Aromatic petroleum-naptha."

Near another tank, which number I did not denote (39?), was another 55-gallon drum labeled as "Hazardous Waste," and marked with the D002 waste number and description "Novaset Filters." This drum had an orange lid. Mr. Daff stated that containers for different waste streams at the facility were identified by the color of the drum lid to help prevent accidental mixing of incompatible materials.

Moving eastward, we observed the drum-filling line (which was not operating at that time). East of the line, were three tanks 31, 32, and 33. These tanks hold finished Part 1 product. Mr. Almquist noted a pool of spilled material near tanks 32 and 33, which appeared to have originated from piping associated with those tanks and from a surficial crack observed in the body of tank 32 (See, Appendix A: Photographs 2 and 3). Mr. Daff stated that Novaset product is never held in any of these tanks.

Near these tanks was a 55-gallon drum labeled as "Hazardous Waste" and marked with the D001 waste number and the description of "Aerosol Cans." ASK does not use a can-puncturing mechanism to release any remaining residual in the can, but discards the entire can.

New Warehouse (Building 3): This warehouse is attached to the east side of Building 2, and houses containers of finished products as well as tanks for storing ethyldimethylamine, which is the amine catalyst that they buy in bulk and transfer into 110-gallon vessels. No hazardous waste was observed in this area.

HF Storage (Building 8): This room is used strictly for storage of HF acid. I did not tour this building.

Tote Fill Area for Part 1 (No Building Designation): This area runs along the north side of Building 2, and used to be an outdoor area that has since been covered and enclosed. The quarantine area for returns was located here near a loading dock. The containers were cordoned off with chains and appeared to be in good condition.

Tank Wagon Loading Area (Outdoors): Located at the center of the west side of the facility. The sumps in the area, and throughout the facility, are connected to a system that discharges through "Discharge Point 2" at the rear of the facility. The sumps are emptied into that system manually after testing.

Core Oil Room (Building 6): This room was designated for the manufacture of core oil, an obsolete material, in the 1960s. Part 2 finished product is stored in this room in tanks 215

and 216. Finished furan products are blended in this room as well. Tanks 219 and 220 used to hold resin products and are now empty and no longer used. Tank 221 holds a co-reactant for the Novaset product. It is a catalyst for that technology. No waste was observed in this room.

Boiler House (Building 4): Located just west of Building 6, we observed a portion of the inside of this room from the outside only. We did not enter the building.

Part 2 Blending (Building 5): Two tanks (222 and 223) in this building are dedicated for the Isocure Part 2 resin and Pep-Set Part 2 resin. Both tanks are blanketed with nitrogen. No waste was observed in this Building.

New Tank Farm: Twelve new product tanks are being installed on the property to the east of Building 5. Six of these tanks are already in service. The other six are still being installed. Mr. Almquist checked the secondary containment to see if any material were building up. He noted that there did not appear to be any accumulation.

Scale House (Building 7): This building, formerly located on the central east side of the facility, has been razed, though it still is on the map that I was provided. Hazardous waste was never stored in this building.

Hot Room (No building designation): In between former Building 7 and Building 5 was a small stand-alone building with a garage door. This building is not on the map that was provided to me. Chemicals in 55-gallon drums in the room are kept heated until they are needed in the process.

Part 2 Filling (Building 11): This building, also known as the Celestrol building, is used for filling drums and totes with Part 2. No hazardous waste was observed in this Building.

Old Tank Farm: To the east of Building 11 is the existing tank farm for storing product. Mr. Almquist checked the secondary containment for material buildup, and noted that there was a small amount of build-up. Just west of the tank farm, on the outside east wall of, I believe, Building 11, Mr. Almquist asked Mr. Daff about 8 drums that were staged in that area (See Appendix A: Picture 4). According to Mr. Daff (at this time and confirmed later in the inspection), the material in these drums was an off-specification Pep-Set catalyst that was going to be reworked at a rate of 10% into new batches of the same material. The label stated that the batch was created on 11/18/2014. Mr. Almquist mentioned speculative accumulation to Mr. Daff.

East side of Buildings 9 and 15: Mr. Almquist asked about two 275-gallon totes that were labeled as "Premix Distillate." Mr. Daff stated that the condensate collected after the resin blending process is processed through a distillation unit to remove methanol, which is directly reused in the process. The material in the totes, he said and later confirmed, was had been run through the distillation column to remove the methanol and was not ignitable. However, rather than route these column bottoms to the boiler, this material was to be re-distilled to see if phenol could be removed from the waste stream as well.

Flammable Drum Storage (Building TB-3): Product drums of flammable materials are stored outside near the flammable tank farm. No hazardous waste was observed in this area.

Paraformaldehyde storage (Building 9): Super sacks of paraformaldehyde prill were stored in this building. These sacks will eventually be emptied into the main storage silo.

Waste Storage Area (Building 10): Hazardous and non-hazardous wastes are stored in a fenced, diked area in this building. Only one hazardous waste drum was in storage at the time. The drum was labeled as "Hazardous Waste," and as "D001 – Aromatic Petroleum Naptha), was closed, and was marked with a start date of accumulation from 6/24/15. A spill kit, emergency phone, pull station fire alarm, dry chemical sprinkler, and fire extinguisher were all in the immediate area. Mr. Almquist checked the phone and gauge on the fire extinguisher to see if they appeared to be in working order. I inquired about whether they have investigated potential incompatibilities in their wastes. I noticed that they generate corrosive and ignitable wastes. They separate the hazardous and non-hazardous wastes with a concrete curb, but the ignitable and corrosive wastes are stored side by side.

Maintenance (No building designation): The maintenance building is located at the far northwest corner of the facility. We observed two drums of waste in the general maintenance area. The first 55-gallon drum held aerosol cans, was closed, labeled as "Hazardous Waste," and marked with the D001 hazardous waste number. The second drum held used oil and was labeled as such. No other wastes were observed in the area.

Part 1 Reactor Building (Building 12): This building houses the Part 1 reactors as well as the process wastewater pits. We observed the three-part tank that is use to collect the water and drop some solids before the water is filtered through the carbon unit to lower the phenol content below 50ppm. Solids that are cleaned out of the tank are managed as non-hazardous waste. The filtered water is stored in tank 807 until a sample result shows that the water can be discharged through Discharge Point 1.

We walked to the top of the reactors. Tanks 301 and 302 are side by side. A batch was in process at the time of the inspection and through a spy glass in one of the tanks, we could see the resin boiling. We observed the 30-inch vent stack that is in place in the event of a runaway reaction. The vent leads to an emergency collection tank. We observed the condensers and the general area of the cooling tower. The condensers were feeding the cooled water back into the reactors. We also observed the receiving tanks for the "distillate" that was to be distilled to remove methanol. These tanks would start filling when the reaction was nearing completion. Approximately 8,000 pounds of distillate is generated per batch. A scrubber system in the area generates a spent solution that is processed through the wastewater system.

The Reactor in-process lab is next to the control room in this building, but it did not appear to be regularly used. Three containers of waste were located in a hood in this lab (See, Appendix A: Photograph 5). A 2-gallon container of waste was closed but not labeled. Two one-gallon containers were closed and labeled as "Lab Solvent Waste."

On the ground floor at the base of the reactors we observed four 55-gallon drums used to collect used canister filters from the reactors. One drum is dedicated for the Novaset process and was labeled as "Hazardous Waste" and "Novaset Filters," as well as with the D002 waste number.

As we walked out of Reactor Building 12, we observed a 330-gallon tote of the Premix Distillate. Mr. Daff reiterated that this material would be re-run through the column to see if it were feasible to remove phenol from the stream as well.

Universal Waste Storage: Located in a closet in the main office building. I observed 2 closed boxes of "Universal Waste Lamps." In addition, four 5-gallon buckets of lead-acid batteries were in this closet. These containers were labeled as "Universal Waste Batteries." The lamps were marked with start dates of accumulation from 9-1-14 and 5-1-15. I did not observe dates on the containers of batteries.

Records and Emergency Preparedness Review

Preparedness and Prevention: The Facility is equipped with internal communications and alarm systems. Phones are available for external communications to summon emergency assistance. In addition to a plant-wide fire suppression system, portable fire extinguishers and spill control equipment are located throughout the Facility and near the 90-day hazardous waste storage area. The chemical fire suppression system has a diesel back-up engine. Emergency equipment is tested and maintained according to a schedule. Aisle space appeared adequate. Arrangements with local emergency responders have been made.

Contingency Plan: The contingency plan is part of the site SPCC plan. A list of Emergency Incident Commanders (emergency coordinators) with phone numbers and addresses was included. Richard Daff was listed as the primary coordinator with John Mural listed as the first alternate and Frank Blackwell as the second alternate. The role of the commanders is explained in the plan. The plan includes emergency evacuation information and maps and emergency equipment lists along with descriptions, capabilities, and locations. The plan lists agreements with the Cleveland police and fire departments, Fairview hospital, the Cuyahoga County local emergency planning commission (LEPC), but not the emergency contractor. According to manifests, the emergency contractor may be Nexeo Solutions. Arrangements with these entities are not described in the plan.

Training: Each employee has an electronic "Learning Plan." The system notifies the employee 30 days in advance of expiration of annual required training. Much of the training is provided electronically. Employees who sign manifests, handle waste in 90-day areas, and are emergency coordinators have received site specific safety training and Emergency Action Plan training within the last year as of 10/14. Joan Tomazic, the Environmental Manager, was last trained on 4/30/15 in Environmental Waste Management including 40 CFR §§ 262.34 and 273 provided by Nexeo Solutions. Susan Manhart conducts non-electronic training for all of the employees at the facility.

Documentation of job descriptions and expected training as they related to hazardous waste management were not available for review during the inspection.

Manifests: Three years of hazardous waste manifests were available for review. The manifests were mainly signed by Joan Tomazic and Daniel Tyler. The Emergency responder listed on the manifest was Nexeo Solutions. Each manifest appeared to be complete and had a signed copy from the destination facility.

Land disposal restriction (LDR) forms were also available for review. Underlying hazardous constituents were not identified on the forms. Some forms did not designate wastewater or non-wastewater.

Used Oil is manifested to Clean Harbors Chattanooga, LLC (TND982141392).

Manifest 008323683FLE, dated 4/30/15, was for a shipment of dimethylisoporpylamine contaminated with sulfuric acid. 15,217 pounds were shipped off-site. No waste codes were included on the manifest. I discussed this shipment with Mr. Daff who looked into the shipment and explained that this material was not hazardous even for pH. He provided me a copy of the waste profile for this waste (Amine Sulfates).

Manifest 006745544FLE was for a wastewater that was exported to Clean Harbors Canada, Inc. This material was handled through Clean Harbors Environmental Services, Inc. ("CHESI"). Section 14 of the manifest states, "CHESI, EPAID No. MIR000014530, is acting as the primary exporter on behalf of the generator." CHESI may have the necessary documentation required for exporting hazardous waste.

Universal Waste bills of lading: Lamps and batteries are recycled through the Waste Management, Inc., WM Lamp Tracker system. The most recent shipments of lamps was on 5/5/15. Batteries appeared to have last been shipped off-site on 3/5/14.

Weekly Inspections: Inspections were being conducted in the 90-day hazardous waste accumulation area. The record included housekeeping, containers, the storage area, spill kit and fire extinguishers, among other items. The record showed that inspections were not being conducted consistently every week. See the following gaps for 2014 and 2015:
1/8/14 – 1/21/14;
1/30/14 – 2/19/14;
2/26/14 – 3/20/14;
5/29/14 – 6/11/14;
9/26/14 – 10/7/14;
10/17/14 – 10/30/14 – 11/11/14;
11/19/14 – 12/11/14;
1/30/15 – 2/12/15;
4/8/15 – 4/21/15; and,
5/9/15 – 5/20/15.

Waste Determinations: Of dozens of profiles, I spot-checked the following waste profiles: Amine scrubber solution, Novaset filters, phenol contaminated soils (2011), amine filters, distillate condensate, Hi-Sol Blend (ignitable, used in all manufacturing), Used motor oil (total halogens <1,000). 50% formaldehyde solution, and Part 1 non-hazardous scrap.

Closing Conference

The following items were discussed with ASK personnel at the close of the inspection:

- Confidential Business Information (CBI) was not claimed for any of the information discussed or gathered throughout the inspection.
- Management of the methanol depleted distillate found in three totes around the facility grounds.
- Management of eight 55-gallon drums off-spec Pep-Set Catalyst observed during the inspection and potential for speculative accumulation.
- Satellite accumulation requirements.
- Potential for incompatible wastes to be stored together in the 90-day storage area.
- LDR form requirements (UHC's, designating as wastewater or non-wastewater, and certification statements).
- Weekly inspection requirements.
- Condition of tank 32.
- Universal waste batteries storage time.
- Applicability of the F005 listing for toluene used for its solvent properties in a lab test.
- Lack of a formaldehyde limit on the sewering permit.

List of Appendices

- Appendix A: Photograph Log
- Appendix B: Checklists
- Appendix C: Documents Received During the Inspection

Appendix A

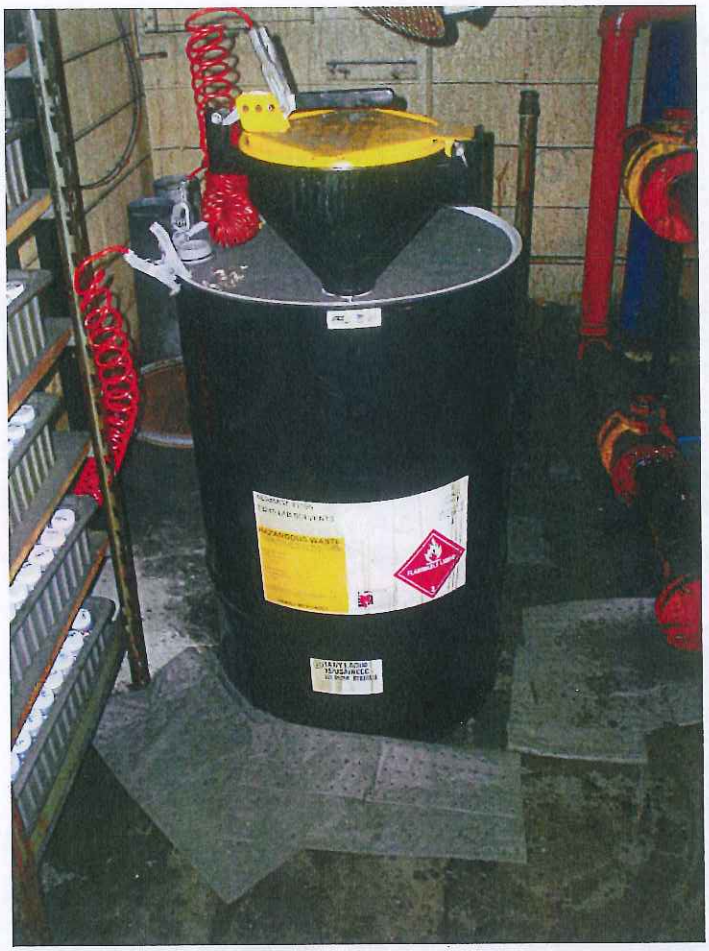
Photograph Log

Inspection Date:
July 14-15, 2015

Facility Name and ID Number:
ASK Chemicals
EPA ID: OHD076751320

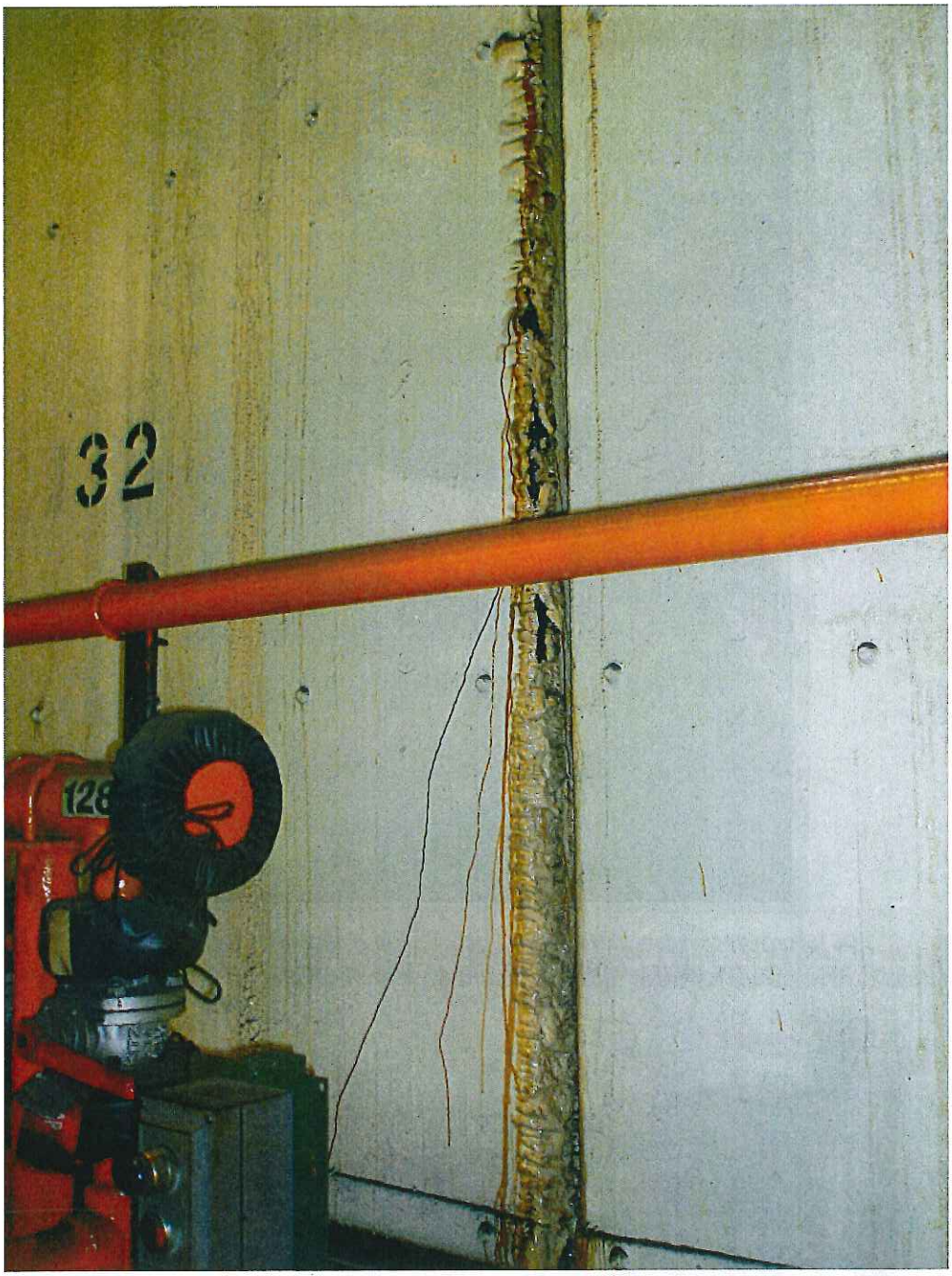
Inspector and Photographer:
Brenda Whitney
Compliance Section 2
RCRA Branch
Land and Chemicals Division

Camera Used:
Olympus Stylus 600
Serial Number: A47525904



Photograph 1 – The QC Laboratory transfers waste from a 2-gallon container inside the lab to this 55-gallon drum outside of the lab. The drum was closed and labeled as "Hazardous Waste." ASK was managing this drum as a satellite container.

Photograph 2 – A puddle of phenolic resin was situated in front of tanks 31 and 32. These tanks hold product resins and are located in the "Old Warehouse," also known as Building 2.



Photograph 3 – Tank 32 appeared to be leaking phenolic resin into the puddle that was identified in Photograph 2 above.

Photograph 4 – On the east side of Building 11, were eight 55-gallon drums of "Pep-Set" catalyst. According to Mr. Daff, this material will be blended back into new batches of the catalyst over time. The material will not first be reclaimed.

Photograph 5 – In Building 12, near the reactor control room was the Reactor In-Process lab. The red two-gallon container on the left was not labeled, but was closed. The two, red, 1-gallon containers at the rear of the hood were labeled as "Lab Solvent Waste" and were closed.

Appendix B

Checklists

Inspection Date:
July 14-15, 2015

Facility Name and ID Number:
ASK Chemicals
OHD076751320

Inspector:
Brenda Whitney
Compliance Section 2
RCRA Branch
Land and Chemicals Division

ASK Chemicals

LARGE QUANTITY GENERATOR REQUIREMENTS

COMPLETE AND ATTACH A PROCESS DESCRIPTION SUMMARY

CESQG: ≤100 Kg. (Approximately 25-30 gallons) of waste in a calendar month or < 1 Kg. of acutely hazardous waste.

SQG: Between 100 and 1,000 Kg. (About 25 to under 300 gallons) of waste in a calendar month.

LQG: ≥ 1,000 Kg. (~300 gallons) of waste in a calendar month or ≥1 Kg. of acutely hazardous waste in a calendar month.

NOTE: To convert from gallons to pounds: Amount in gallons x Specific Gravity x 8.345 = Amounts in pounds.

Safety Equipment Used:

GENERAL REQUIREMENTS

1.	Have all wastes generated at the facility been adequately evaluated? [3745-52-11]	Yes	☒	No	☐	N/A	☐
2.	Are records of waste determination being kept for at least 3 years? [3745-52-40(C)]	Yes	☒	No	☐	N/A	☐
3.	Has the generator obtained a U.S. EPA identification number? [3745-52-12]	Yes	☒	No	☐	N/A	☐
4.	Were biennial reports filed with Ohio EPA on or before March 1st? [3745-52-41(A)] (filed on even years for previous year)	Yes	☒	No	☐	N/A	☐
5.	Are biennial reports kept on file for at least 3 years? [3745-52-40(B)]	Yes	☒	No	☐	N/A	☐
6.	Has the generator transported or caused to be transported hazardous waste to **other** than a facility authorized to manage the hazardous waste? [ORC 3734.02(F)] NOT OBSERVED	Yes	☐	No	☒	N/A	☐
7.	Has the generator disposed of hazardous waste **on-site without a permit** or at another facility **other** than a facility authorized to dispose of the hazardous waste? [ORC 3734.02(E)&(F)]	Yes	☐	No	☒	N/A	☐
8.	Does the generator accumulate hazardous waste?	Yes	☒	No	☐	N/A	☐

NOTE: If the LQG does not accumulate or treat hazardous waste, it is not subject to 52-34 standards. All other requirements still apply, e.g., annual reports, manifest, marking, record keeping, LDR, etc.

9.	Has the generator accumulated hazardous waste on-site in excess of 90 days without a permit or an extension from the director ORC §3734.02(E)&(F)?	Yes	☐	No	☒	N/A	☐

NOTE: If F006 waste is generated and accumulated for > 90 days and is recycled see 3745-52-34(G)&(H).

10.	Does the generator treat hazardous waste in a: [ORC 3734.02(E)&(F)]						
	a. Container that meets 3745-66-70 to 3745-66-77?	Yes	☐	No	☐	N/A	☒
	b. Tank that meets 3745-66-90 to 3745-66-100 except 3745-66-97(C)?	Yes	☐	No	☐	N/A	☒
	c. Drip pads that meet 3745-69-40 to 3745-69-45?	Yes	☐	No	☐	N/A	☒

ON-SITE DISTILLATION COLUMN FOR DISTILLATE FROM REACTORS 301/302

	d.	Containment building that meets 3745-256-100 to 3745-256-102?	Yes ☐ No ☐ N/A ☒
NOTE: Complete appropriate checklist for each unit.			
NOTE: If waste is treated to meet LDRs, use LDR checklist.			
11.	Does the generator export hazardous waste? If so: THROUGH CLEAN HARBORS		Yes ☒ No ☐ N/A ☐
	a.	Has the generator notified U.S. EPA of export activity? [3745-52-53(A)] UNDETERMINED - INVESTIGATING	Yes ☐ No ☐ N/A ☐
	b.	Has the generator complied with special manifest requirements? [3745-52-54]	Yes ☐ No ☐ N/A ☐
	c.	For manifests that have not been returned to the generator: has an exception report been filed? [3745-52-55]	Yes ☐ No ☐ N/A ☐
	d.	Has an annual report been submitted to U.S. EPA? [3745-52-56]	Yes ☐ No ☐ N/A ☐
	e.	Are export related documents being maintained on-site? [3745-52-57(A)]	Yes ☐ No ☐ N/A ☐
MANIFEST REQUIREMENTS			
12.	Have all hazardous wastes shipped off-site been accompanied by a manifest? (U.S. EPA Form 8700-22) [3745-52-20(A)(1)]		Yes ☒ No ☐ N/A ☐
13.	Have items (1) through (20) of each manifest been completed? [3745-52-20(A)(1)]&[3745-52-27(A)]		Yes ☒ No ☐ N/A ☐
NOTE: U.S. EPA Form 8700-22(A) (the continuation form) may be needed in addition to Form 8700-22. In these situations items (21) through (35) must also be completed. [3745-52-20(A)(1)]			
14.	Does each manifest designate at least one facility which is permitted to handle the waste? [3745-52-20(B)]		Yes ☒ No ☐ N/A ☐
NOTE: The generator may designate on the manifest one alternate facility to handle the waste in the event of an emergency which prevents the delivery of waste to the primary designated facility. [3745-52-20(C)]			
15.	If the transporter was unable to deliver a shipment of hazardous waste to the designated facility, did the generator designate an alternate TSD facility or give the transporter instructions to return the waste? [3745-52-20(D)]		Yes ☐ No ☐ N/A ☒
16.	Have the manifests been signed by the generator and initial transporter? [3745-52-23(A)(1)&(2)]		Yes ☒ No ☐ N/A ☐
NOTE: Remind the generator that the certification statement they signed indicates: 1) they have properly prepared the shipment for transportation and 2) they have a program in place to reduce the volume and toxicity waste they generate.			
17.	If the generator received a rejected load or residue, did the generator:		
	a.	Sign item 20 of the new manifest or item 18c of the original manifest?	Yes ☐ No ☐ N/A ☒

		[3745-52-23(F)(1)	
	b.	Provide the transporter a copy of the manifest? [3745-52-23(F)(2)]	Yes ☐ No ☐ N/A ☒
	c.	Send a copy of the manifest to the designated facility that returned the shipment with 30 days after delivery of the rejected shipment? [3745-52-23(F)(3)]	Yes ☐ No ☐ N/A ☒
18.	If the generator did not receive a return copy of each completed manifest within 35 days of the waste being accepted by the transporter, did the generator contact the transporter and/or TSD facility to check on the status of the waste? [3745-52-42(A)(1)]		Yes ☒ No ☐ N/A ☒ 6W
19.	If the generator has not received the manifest within 45 days, did the generator file an exception report with Ohio EPA? [3745-52-42(A)(2)]		Yes ☐ No ☐ N/A ☒
20.	Are signed copies of all manifests and any exception reports being retained for at least three years? [3745-52-40]		Yes ☒ No ☐ N/A ☐
NOTE: A generator who sends a shipment of hazardous waste to a TSD facility with the understanding that the TSD facility can accept and manage the waste and later receives that shipment back as a rejected load or residue may accumulate the waste on-site for <90 days or <180 days depending on the amount of hazardous waste on-site in that calendar month. [3745-52-34(M)]			
NOTE: Waste generated at one location and transported along a publicly accessible road for temporary consolidated storage or treatment on a contiguous property also owned by the same person is not considered "on-site" and manifesting and transporter requirements must be met. To transport "along" a public right-of-way the destination facility has to act as a transfer facility or have a permit because this is considered to be "off-site." For additional information see the definition of "on-site" in OAC rule 3745-50-10.			
PERSONNEL TRAINING			
21.	Does the generator have a training program which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to their positions? [3745-65-16(A)(2)]		Yes ☒ No ☐ N/A ☐
22.	Does the personnel training program, at a minimum, include instructions to ensure that facility personnel are able to respond effectively to emergencies involving hazardous waste by familiarizing them with emergency procedures, emergency equipment and emergency systems (where applicable)? [3745-65-16(A)(3)]		Yes ☒ No ☐ N/A ☐
NOTE: For facility employees that receive emergency response training pursuant to OSHA regulations, the facility is not required to provide separate emergency response training, provided that the overall facility training meets all the requirements of OAC 3745-65-16(A). [3745-65-16(A)(4)]			
23.	Is the personnel training program directed by a person trained in hazardous waste management procedures? [3745-65-16(A)(2)]		Yes ☒ No ☐ N/A ☐
24.	Do new employees receive training within six months after the date of hire (or assignment to a new position)? [3745-65-16(B)]		Yes ☒ No ☐ N/A ☐

25.	Does the generator provide refresher training to employees during each period from January 1st to December 31st and does each training occur within 15 months after the previous training? [3745-65-16(C)]		Yes ☒ No ☐ N/A ☐
26.	Does the generator keep records and documentation of:		
	a.	Job titles? [3745-65-16(D)(1)]	Yes ☒ No ☐ N/A ☐
	b.	Job descriptions? [3745-65-16(D)(2)]	Yes ☒ No ☐ N/A ☐
	c.	A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (D)(1) of this rule? [3745-65-16(D)(3)]	Yes ☒ No ☐ N/A ☐
	d.	Completed training or job experience required? [3745-65-16(D)(4)]	Yes ☒ No ☐ N/A ☐
27.	Are training records for current personnel kept until closure of the facility and are training records for former employees kept for at least three years from the date the employee last worked at the facility? [3745-65-16(E)]		Yes ☒ No ☐ N/A ☐

NOTE: The following section can be used by the inspector to document that all personnel who are involved with hazardous waste management have been trained. The employees who need training (written and/or on-the -job) may include the following: environmental coordinators, drum handlers, emergency coordinators, personnel who conduct hazardous waste inspections, emergency response teams, personnel who prepare manifest, etc.

Job Performed	Name of Employee	Date Trained

CONTINGENCY PLAN

28.	Does the owner/operator have a contingency plan to minimize hazards to human health or the environment from fires, explosions or any unplanned release of hazardous waste? [3745-65-51(A)]		Yes ☒ No ☐ N/A ☐
29.	Does the plan describe the following:		
	a.	Actions to be taken in response to fires, explosions or any unplanned release of hazardous waste? [3745-65-52(A)]	Yes ☒ No ☐ N/A ☐
	b.	Arrangements with emergency authorities? [3745-65-52(C)]	Yes ☒ No ☐ N/A ☐
	c.	A current list of names, addresses and telephone numbers (office and home) of all persons qualified to act as emergency coordinator? [3745-65-52(D)]	Yes ☒ No ☐ N/A ☐
	d.	A list of all emergency equipment, including: location, a physical description and brief outline of capabilities? [3745-65-52(E)]	Yes ☒ No ☐ N/A ☐

	e.	An evacuation plan for facility personnel where there is possibility that evacuation may be necessary? [3745-65-52(F)]	Yes ☒ No ☐ N/A ☐
NOTE: If the facility already has a "Spill Prevention, Control and Countermeasures Plan" under 40 CFR Part 112 or some other emergency plan, the facility can amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with OAC requirements. The facility may develop one contingency plan which meets all regulatory requirements. Ohio EPA recommends that the plan be based on the "National Response Team's Integrated Contingency Plan Guidance (One Plan)." [3745-65-52(B)]			
30.		Is a copy of the plan (plus revisions) kept on-site and been given to all emergency authorities that may be requested to provide emergency services? [3745-65-53(A)&(B)] Emergency Contractor SWS	Yes ☐ No ☒ N/A ☐
31.		Has the generator revised the plan in response to rule changes, facility, equipment and personnel changes, or failure of the plan? [3745-65-54]	Yes ☒ No ☐ N/A ☐
32.		Is an emergency coordinator available at all times (on-site or on-call)? [3745-65-55]	Yes ☒ No ☐ N/A ☐
NOTE: The emergency coordinator shall be thoroughly familiar with: (a) all aspects of the facility's contingency plan; (b) all operations and activities at the facility; (c) the location and characteristics of waste handled; (d) the location of all records within the facility; (e) facility layout; and (f) shall have the authority to commit the resources needed to implement provisions of the contingency plan.			
EMERGENCY PROCEDURES			
33.		Has there been a fire, explosion or release of hazardous waste or hazardous waste constituents since the last inspection? If so:	Yes ☐ No ☒ N/A ☐
	a.	Was the contingency plan implemented? [3745-65-51(B)]	Yes ☐ No ☐ N/A ☒
	b.	Did the facility follow the emergency procedures in 3745-65-56(A) through (H)?	Yes ☐ No ☐ N/A ☒
	c.	Did the facility submit a report to the Director within 15 days of the incident as required by 3745-65-56(I)?	Yes ☐ No ☐ N/A ☒
NOTE: OAC 3745-65-51(B) requires that the contingency plan be implemented immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents, which could threaten human health and the environment.			

PREPAREDNESS AND PREVENTION			
34.	Is the facility operated to minimize the possibility of fire, explosion, or any unplanned release of hazardous waste? [3745-65-31]		Yes ☒ No ☐ N/A ☐
35.	Does the generator have the following equipment at the facility, if it is required due to actual hazards associated with the waste:		
	a.	Internal communications or alarm system? [3745-65-32(A)]	Yes ☒ No ☐ N/A ☐
	b.	Emergency communication device? [3745-65-32(B)]	Yes ☒ No ☐ N/A ☐
	c.	Portable fire control, spill control and decon equipment? [3745-65-32(C)]	Yes ☒ No ☐ N/A ☐
	d.	Water of adequate volume/pressure per documentation or facility rep? [3745-65-32(D)]	Yes ☒ No ☐ N/A ☐
NOTE: Verify that the equipment is listed in the contingency plan.			
36.	Is emergency equipment tested (inspected) as necessary to ensure its proper operation in time of emergency? [3745-65-33]		Yes ☒ No ☐ N/A ☐
37.	Are emergency equipment tests (inspections) recorded in a log or summary? [3745-65-33]		Yes ☒ No ☐ N/A ☐
38.	Do personnel have immediate access to an internal alarm or emergency communication device when handling hazardous waste (unless the device is not required under 3745-65-32)? [3745-65-34(A)]		Yes ☒ No ☐ N/A ☐
39.	If there is only one employee on the premises, is there immediate access to a device (eg. phone, and hand held two-way radio) capable of summoning external emergency assistance (unless not required under 3745-65-32)? [3745-65-34(B)]		Yes ☒ No ☐ N/A ☐
40.	Is adequate aisle space provided for unobstructed movement of emergency or spill control equipment? [3745-65-35]		Yes ☒ No ☐ N/A ☐
41.	Has the generator attempted to familiarize emergency authorities with possible hazards and facility layouts? [3745-65-37(A)]		Yes ☒ No ☐ N/A ☐
42.	Where authorities have declined to enter into arrangements or agreements, has the generator documented such a refusal? [3745-65-37(B)]		Yes ☐ No ☐ N/A ☒
SATELLITE ACCUMULATION AREA REQUIREMENTS			
43.	Does the generator ensure that satellite accumulation area(s):		
	a.	Are at or near a point of generation? [3745-52-34(C)(1)] LABORATORY	Yes ☐ No ☒ N/A ☐

	b.	Are under the control of the operator of the process generating the waste? [3745-52-34(C)(1)] LAB	Yes ☐ No ☒ N/A ☐
	c.	Do not exceed a total of 55 gallons of hazardous waste per waste stream? [3745-52-34(C)(1)]	Yes ☒ No ☐ N/A ☐
	d.	Do not exceed one quart of acutely hazardous waste at any one time? [3745-52-34(C)(1)]	Yes ☒ No ☐ N/A ☐
	e.	Containers are closed, in good condition and compatible with wastes stored in them? [3745-52-34(C)(1)(a)]	Yes ☒ No ☐ N/A ☐
	f.	Containers are marked with words "Hazardous Waste" or other words identifying the contents? [3745-52-34(C)(1)(b)] LAB CONTAINERS	Yes ☐ No ☒ N/A ☐
44.	Is the generator accumulating hazardous waste(s) in excess of the amounts listed in the preceding question? If so:		Yes ☐ No ☒ N/A ☐
	a.	Did the generator comply with 3745-52-34(A)(1) through (4) or other applicable generator requirements within three days? [3745-52-34(C)(2)]	Yes ☐ No ☐ N/A ☒
	b.	Did the generator mark the container(s) holding excess with the accumulation date when the 55 gallon (one quart) limit was exceeded? [3745-52-34(C)(2)]	Yes ☐ No ☐ N/A ☒

NOTE: The satellite accumulation area is limited to 55 gallons of hazardous waste accumulated from a distinct point of generation in the process under the control of the operator of the process generating the waste (less then 1 quart for acute hazardous waste). There could be individual waste streams accumulated in an area from different points of generation.

USE AND MANAGEMENT OF CONTAINERS IN <90 DAY ACCUMULATION AREAS

45.	Has the generator marked containers with the words "Hazardous Waste?" [3745-52-34(A)(3)]		Yes ☒ No ☐ N/A ☐
46.	The date upon which each period of accumulation and/or treatment begins is clearly marked and visible for inspection on each container? [3745-52-34(A)(2)]		Yes ☒ No ☐ N/A ☐
47.	Are hazardous wastes stored in containers which are:		
	a.	Closed (except when adding/removing wastes)? [3745-66-73(A)]	Yes ☒ No ☐ N/A ☐
	b.	In good condition? [3745-66-71]	Yes ☒ No ☐ N/A ☐
	c.	Compatible with wastes stored in them? [3745-66-72]	Yes ☒ No ☐ N/A ☐
	d.	Handled in a manner which prevents rupture/leakage? [3745-66-73(B)]	Yes ☒ No ☐ N/A ☐

NOTE: Record location on process summary sheets, photograph the area, and record on facility map.			
48.	Is the container accumulation areas(s) inspected at least once during the period from Sunday to Saturday? [3745-66-74]		Yes ☐ No ☒ N/A ☐
	a.	Are inspections recorded in a log or summary? [3745-66-74]	Yes ☒ No ☐ N/A ☐
49.	Are containers of ignitable or reactive wastes located at least 50 feet (15 meters) from the facility's property line? [3745-66-76]		Yes ☒ No ☐ N/A ☐
50.	Are containers of incompatible wastes stored separately from each other by means of a dike, berm, wall or other device? [3745-66-77(C)] D001 and D002 (investigating)		Yes ☐ No ☐ N/A ☐
51.	If the generator places incompatible wastes, or incompatible wastes and materials in the same container, is it done in accordance with 3745-65-17(B)? [3745-66-77(A)]		Yes ☐ No ☐ N/A ☒
52.	If the generator places hazardous waste in an unwashed container that previously held an incompatible waste, is it done in accordance with 3745-65-17(B)? [3745-66-77(B)]		Yes ☐ No ☐ N/A ☒
NOTE: OAC 3745-65-17(B) requires that the generator treat, store, or dispose of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials so that it does not create undesirable conditions or threaten human health or the environment.			
53.	If the generator has closed a <90 day accumulation area does the closure appear to have met the closure performance standard of 3745-66-11? [3745-52-34(A)(1)]		Yes ☐ No ☐ N/A ☒
NOTE: Please provide a description of the unit and documentation provided by the generator for the file to demonstrate that closure was completed in accordance with the closure performance standards. If the generator has closed a <90 day tank, closure must also be completed in accordance with OAC 3745-66-97 (except for paragraph C of this rule). [3745-52-34]			
PRE-TRANSPORT REQUIREMENTS			
54.	Does the generator package/label its hazardous waste in accordance with the applicable DOT regulations? [3745-52-30, 3745-52-31 and 3745-52-32(A)]		Yes ☒ No ☐ N/A ☐
55.	Does each container ≤119 gallons have a completed hazardous waste label? [3745-52-32(B)]		Yes ☒ No ☐ N/A ☐
56.	Before off-site transportation, does the generator placard or offer the appropriate DOT placards to the initial transporter? [3745-52-33]		Yes ☒ No ☐ N/A ☐

GENERATOR LDR CHECKLIST DOES NOT APPLY TO CESQGS				
GENERAL REQUIREMENTS				
1.	If LDRs do not apply, does the generator have a statement that lists how the HW was generated, why LDRs don't apply and where the HW went? [3745-270-07(A)(7)]			Yes ☐ No ☐ N/A ☒
2.	Did the generator determine if the HW/soil must be treated to meet the LDR treatment standard prior to disposal? Generator knowledge or testing may be used. [3745-270-07(A)(1)] If not,			Yes ☐ No ☐ N/A ☒
	a.	Did the generator send the waste to a permitted HW TREATMENT facility? [3745-270-07(A)(1)]		Yes ☐ No ☐ N/A ☒
NOTE: This is done by determining if the HW /soil contains levels of constituents greater than the levels given in its LDR treatment standard in 3745-270-40. However, if a specific treatment method is given in 3745-270-40 for the HW, no determination is required [3745-270-07(A)(1)(b)]. If soil, generator can choose to have soil treated to LDR levels given in 3745-270-49 (alternative treatment levels for soils).				
3.	Does the generator have documentation of how he determined whether the HW/soil meets or does not meet the LDR treatment standard in 2, above? [3745-270-07(A)(6)(a) or 3745-270-07(A)(6)(b)]			Yes ☐ No ☐ N/A ☒
4.	Does the generator keep the documentation required in #2, above, on-site for at least three years from the last date the HW/soil was sent on-site/off-site for treatment/disposal? [3745-270-07(A)(8)]			Yes ☐ No ☐ N/A ☒
5.	Does the generator generate a listed HW that exhibits a characteristic? If yes, TOLUENE IN LAB WASTE F005/D001			Yes ☒ No ☐ N/A ☐
	a.	Did the generator determine if the listed HW exhibits a characteristic that is not treated under the LDR treatment standard for the listed HW? [3745-270-09(A)]		Yes ☒ No ☐ N/A ☐
FOR EXAMPLE: F006 that exhibits the characteristic for silver or K062 that is corrosive, D002. Review LDR treatment standard in 3745-270-40 to determine what constituents the listed HW is treated for.				
6.	Did the generator determine if its characteristic HW contains underlying hazardous constituents that need to be treated? [3745-270-09(A)]			Yes ☒ No ☐ N/A ☐ NONE PRESE
NOTE: This is done by evaluating which underlying hazardous constituents (UHC) are in the HW at levels above the universal treatment standards given in 3745-270-48. This requirement does not apply to high total organic carbon (i.e., contains >10% TOC) D001 wastes or listed HWs.				
NOTE: Written documentation of this determination is not required.				
7.	Did the generator treat his HW /soil on-site <u>to meet</u> the LDR treatment standard?			Yes ☐ No ☒ N/A ☐
NOTE: If "Yes" see question #16.				
8.	Did the generator send a one-time LDR notification form to the TSD with the first shipment to that facility? [3745-270-07(A)(2)]			Yes ☒ No ☐ N/A ☐
	a.	If the generator chose not to make the determination of whether his waste must be treated, did he send a notice to the TSD facility with each shipment? [3745-270-07(A)(2)] If so, did the notice include:		Yes ☐ No ☐ N/A ☒
		i	Applicable HW codes?	Yes ☐ No ☐ N/A ☒
		ii	Manifest number of the first shipment to the TSD?	Yes ☐ No ☐ N/A ☒
		iii	A statement that conveys that the HW may or may not be subject to the LDR treatment standards and the TSD must make that determination."?	Yes ☐ No ☐ N/A ☒

9.	Did the generator resubmit the LDR notification form to the TSD when the HW changed or the generator used a new TSD? [3745-270-07(A)(2)]		Yes ☒ NA No ☐ N/A ☒	
10.	Does the generator have a copy of the LDR notification form/notice on file? [3745-270-07(A)(2)]		Yes ☒ No ☐ N/A ☐	
	a.	Is the form/notice kept on file for three years after last HW shipped? [3745-270-07(A)(8)]	Yes ☒ No ☐ N/A ☐	
NOTIFICATION FORM				
11.	Does the LDR Notification form contain the following information:			
	a.	Manifest number of the first waste shipment to the TSD? [3745-270-07(A)(2)]	Yes ☒ No ☐ N/A ☐	
	b.	Applicable waste codes (includes characteristic codes for a listed HW if applicable)? [3745-270-07(A)(2)]	Yes ☒ No ☐ N/A ☐	
	c.	A statement that conveys that the HW is subject to LDRs and must be treated to meet LDR treatment requirements? [3745-270-07(A)(2)] Still checking	Yes ☐ No ☒ N/A ☐	
	d.	A designation whether the HW is a wastewater or non-wastewater? [3745-270-07(A)(2)]	Yes ☐ No ☒ N/A ☐	
NOTE: A wastewater contains <1% by wt. total suspended solids(TSS) and <1% by wt. TOC. If you doubt the HW is a wastewater or non-wastewater, the HW can be tested using for example, Standard Methods (SM) 160.2 for TSS, SW-846 method 9060a for TOC.				
	e.	Designation of the waste subcategory when applicable? [3745-270-07(A)(2)]	Yes ☐ No ☐ N/A ☒	
NOTE: Subcategories are found on the LDR treatment standards table under the applicable waste code. Not all HWs have subcategories				
	f.	A listing of the underlying hazardous constituents for which a characteristic waste must be treated? [3745-270-07(A)(2)] → Checking NONE PRESENT?	Yes ☐ No ☐ N/A ☐	
NOTE: Not required if the waste is high TOC D001 or the TSD tests its treatment residues for all underlying hazardous constituents.				
	g.	If the HW is F001-F005 or F039, did the generator note on the LDR form what solvents or constituents, respectively, the waste contains and must be treated for? [3745-270-07(A)(2)]	Yes ☒ No ☐ N/A ☐	
NOTE: Not required if the TSD tests its treatment residues for all underlying hazardous constituents.				
PROHIBITED DILUTION				
12.	Is the HW treated by burning? If "No" go to #15.		Yes ☐ No ☐ N/A ☒	
13.	Is the HW a metal-bearing HW?		Yes ☐ No ☐ N/A ☒	
NOTE: Generally, metal-bearing HWs contain heavy metals above TCLP levels or were listed due to the presence of metals. A list of the restricted metal-bearing HWs are given in the Appendix to 3745-270-03.				
14.	a.	Metal-bearing HWs cannot be incinerated, combusted or, blended and burned for fuel unless **one** of the following conditions apply. [3745-270-03(c)]		
		i. Contains > 1% TOC?	Yes ☐ No ☐ N/A ☒	
		ii. Contains organic constituents or cyanide at levels greater than the UTS levels?	Yes ☐ No ☐ N/A ☒	
		iii. Is made up of combustible material e.g., paper, wood, plastic?	Yes ☐ No ☐ N/A ☒	

		iv.	Has a reasonable heating value (e.g., > 5000 Btu)?	Yes ☐ No ☐ N/A ☒
		v.	Co-generated with a HW that must be combusted?	Yes ☐ No ☐ N/A ☒
	b.		If all responses to 14 a.i. through 14 a.v. are "No", HW is being improperly treated by dilution, violation of 3745-270-03(C). Is HW being treated by dilution?	Yes ☐ No ☐ N/A ☒
15.	Was the HW treated by wastewater treatment?			Yes ☐ No ☐ N/A ☒
	a.		Is a LDR treatment method, other than DEACT or a numerical value, specified for the waste? [3745-270-03(B) and 3745-270-40(A)(3)]	Yes ☐ No ☐ N/A ☒
NOTE: If "Yes", HW is improperly being treated by dilution.				
	b.		Does the waste carry the D001 code and contain ≥10% TOC?	Yes ☐ No ☐ N/A ☒
	c.		Does the wastewater treatment process include a process to separate/recover the organic phase of the waste?	Yes ☐ No ☐ N/A ☒
NOTE: If the answers to b & c are "yes" and "no", respectively, waste is improperly being treated by dilution and generator is in violation of [3745-270-03(B)] and 3745-270-40(A)(3)].				
NOTE: A list of separation/recovery processes are given in 3745-270-42 under RORG.				
GENERATOR TREATMENT				
16.	Does the generator treat to meet LDRs on-site?			Yes ☐ No ☒ N/A ☐
	Did the generator treat his hazardous waste/soil on-site in a tank, container, drip pad or containment building to meet the LDR treatment standard?			Yes ☐ No ☐ N/A ☒
	If "Yes"…complete the rest of the checklist. If "No"...stop...you are done.			
	a.		Does the generator have a written waste analysis plan (WAP) that describes the procedures he will follow to treat the HW/soil to the LDR treatment standard? [3745-270-07(A)(5)]	Yes ☐ No ☐ N/A ☒
	b.		Did the generator use a detailed chemical and physical analysis of the HW/soil in order to develop the WAP? [3745-270-07(A)(5)(a)]	Yes ☐ No ☐ N/A ☒
NOTE: This is a laboratory analysis but it does not have to be kept by the generator.				
	c.		Does the WAP contain all information necessary to treat the HW/soil to the LDR treatment standard? [3745-270-07(A)(5)(a)]	Yes ☐ No ☐ N/A ☒
	d.		Does the WAP include the testing frequency of the treated HW/soil to demonstrate that the LDR treatment standard is being met? [3745-270-07(A)(5)(a)]	Yes ☐ No ☐ N/A ☒
	e.		Does the generator keep the WAP on-site? [3745-270-07(A)(5)(b)]	Yes ☐ No ☐ N/A ☒
	f.		Is the WAP available for the inspector's review during the inspection? [3745-270-07(A)(5)(b)]	Yes ☐ No ☐ N/A ☒
NOTIFICATION FORM FOR GENERATOR TREATMENT				
17.	a.		Contains all information in #11 a-g above and	Yes ☐ No ☐ N/A ☒

- phenol
- formaldehyde } Wastewater

	b.	If the treated HW/soil is listed.....notification contains the following certification statement: "I certify under penalty of law that I personally have examined and am familiar with the waste, through analysis and testing or through knowledge of the waste, to support this certification that the waste complies with the treatment standards specified in rule 3745-270-40 to 3745-270-49 of the Administrative Code. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."			Yes ☐ No ☐ N/A ☒
	c.	If the treated HW/soil no longer exhibits a characteristic and is no longer a HW, did the generator:			
		i.	Prepare a one-time notification? [3745-270-09 (D)]		Yes ☐ No ☐ N/A ☒
		ii.	Maintain a copy of the notice onsite? [3745-270-09(D)]		Yes ☐ No ☐ N/A ☒
		iii.	Include in the notification: [3745-270-09(D)]		
			1.	Name & address of receiving landfill?	Yes ☐ No ☐ N/A ☒
			2.	Description of HW when generated?	Yes ☐ No ☐ N/A ☒
			3.	HW code when generated?	Yes ☐ No ☐ N/A ☒
			4.	Treatability group when generated?	Yes ☐ No ☐ N/A ☒
			5.	Underlying hazardous constituents present when generated?	Yes ☐ No ☐ N/A ☒
		iv.	Contain the certification statement as required by 3745-270-07(B)(4)?		Yes ☐ No ☐ N/A ☒

SMALL QUANTITY UNIVERSAL WASTE HANDLER REQUIREMENTS BATTERIES AND LAMPS			
Large Quantity Universal Waste Handler (LQUWH) = 5,000 Kg or more			
Small Quantity Universal Waste Handler (SQUWH) = 5,000 Kg or less			
PROHIBITIONS			
1.	Did the SQUWH dispose of universal waste? [3745-273-11(A)]	Yes ☐	No ☒	N/A ☐
2.	Did the SQUWH dilute or treat universal waste, except when responding to releases as provided in OAC rule 3745-273-17 or managing specific wastes as provided in OAC rule 3745-273-13? [3745-273-11(B)]	Yes ☐	No ☒	N/A ☐
WASTE MANAGEMENT AND LABELING/MARKING			
UNIVERSAL WASTE BATTERIES			
3.	Are batteries that show evidence of leakage, spillage or damage that could cause leaks contained? [3745-273-13(A)(1)]	Yes ☐	No ☐	N/A ☒
4.	If batteries are contained, are the containers closed and structurally sound, compatible with the contents of the battery and lack evidence of leakage, spillage or damage that could cause leakage? [3745-273-13(A)(1)]	Yes ☒	No ☐	N/A ☐
5.	Are the casings of the batteries breached, not intact, or open (except to remove the electrolyte)? [3745-273-13(A)]	Yes ☐	No ☒	N/A ☐
6.	If the electrolyte is removed or other wastes generated, has it been determined whether the electrolyte or other wastes exhibit a characteristic of hazardous waste? [3745-273-13(A)(3)]	Yes ☐	No ☐	N/A ☒
a.	If the electrolyte or other waste is characteristic, is it managed in compliance with OAC Chapters 3745-50 through 3745-69? [3745-273-13(A)(3)(a)]	Yes ☐	No ☐	N/A ☒
b.	If the electrolyte or other waste is not hazardous, is it managed in compliance with applicable law? [3745-273-13(A)(3)(b)]	Yes ☐	No ☐	N/A ☒
7.	Are the batteries or containers of batteries labeled with the words "Universal Waste - Batteries" or "Waste Battery(ies)" or "Used Battery(ies)?" [3745-273-14(A)]	Yes ☒	No ☐	N/A ☐
UNIVERSAL WASTE LAMPS			
8.	Does the SQUWH contain lamps in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with contents of the lamps? Are containers or packages closed and do they lack evidence of leakage, spillage or damage that could cause leakage? [3745-273-13(D)(1)]	Yes ☒	No ☐	N/A ☐
9.	Are lamps that show evidence of breakage, leakage or damage that could cause a release of mercury or hazardous constituents into the environment immediately cleaned up? Are they placed into a container that is closed, structurally sound, compatible with the contents of the lamps, and lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or hazardous waste constituents to the environment? [3745-273-13(D)(2)]	Yes ☐	No ☐	N/A ☒

NOTE: ***Treatment (such as crushing) by a UWH is prohibited under this rule unless the facility is permitted for such activities [3745-273-31(B)].*** *A generator crushing lamps must manage lamps according to hazardous waste rules (OAC Chapter 3745-52). Lamp crushing is a form of generator treatment (OAC rule 3745-52-34). Crushed lamps must be transported by a registered hazardous waste transporter to a permitted hazardous waste facility using a hazardous waste manifest.*

10.	Are the lamps or containers or packages of lamps labeled with the words "Universal Waste - Lamp(s)" or "Waste Lamp(s)" or "Used Lamp(s)?" [3745-273-14(E)]		Yes ☒ No ☐ N/A ☐
ACCUMULATION TIME			
11.	Is the waste accumulated for less than one year? [3745-273-15(A)] Lamps, yes. Batteries - checking		Yes ☐ No ☐ N/A ☐
	a.	If not, is the waste accumulated over one year in order to facilitate proper recovery, treatment or disposal? (Burden of proof is on the handler to demonstrate) [3745-273-15(B)]	Yes ☐ No ☐ N/A ☒
NOTE: Accumulation is defined as date generated or date received from another handler.			
12.	Is the handler able to demonstrate the length of time the universal waste has been accumulated? [3745-273-15(C)] If yes, describe below:		Yes ☐ No ☐ N/A ☐ Lamps ☒ Yes
EMPLOYEE TRAINING			
13.	Are employees who handle or have the responsibility for managing universal waste informed of waste handling/emergency procedures, relative to their responsibilities? [3745-273-16]		Yes ☒ No ☐ N/A ☐
RESPONSE TO RELEASES			
14.	Are releases of universal waste and other residues immediately contained? [3745-273-17(A)]		Yes ☐ No ☐ N/A ☒
15.	Is the material released characterized? [3745-273-17(B)]		Yes ☐ No ☐ N/A ☒
16.	If the material released is a hazardous waste, was it managed as required in OAC Chapters 3745-50 through 3745-69? (If the waste is hazardous, the handler is considered the generator of the waste and is subject to OAC Chapter 3745-52) [3745-273-17(B)]		Yes ☐ No ☐ N/A ☒
OFF-SITE SHIPMENTS			
NOTE: If a SQUWH self-transports waste, then the handler must comply with the Universal Waste transporter requirements.			
17.	Are universal wastes sent to either another handler, destination facility or foreign destination? [3745-273-18(A)]		Yes ☒ No ☐ N/A ☐
18.	Is the handler aware of DOT requirements for packaging and shipping? If no, make aware of 49 CFR 171-180.		Yes ☒ No ☐ N/A ☐
19.	Prior to shipping universal waste off-site, does the originating handler ensure that the receiver agrees to receive the shipment? [3745-273-18(D)]		Yes ☒ No ☐ N/A ☐
20.	Has the originating handler ever had an off-site shipment rejected by another handler or destination facility?		Yes ☐ No ☒ N/A ☐
	a.	If yes, did the originating handler receive the waste back or agree to where the shipment was sent? [3745-273-18(E)(2)]	Yes ☐ No ☐ N/A ☒

21.	If a handler rejects a partial or full load from another handler, does the receiving handler contact the originating handler and discuss and do <u>one of the following</u>:		Yes ☐ No ☐ N/A ☒
	a.	Send the waste back to the originating handler or send the shipment to a destination facility (If both the originating and receiving handler agree)? [3745-273-18(F)(2)]	Yes ☐ No ☐ N/A ☒
22.	If the handler received a shipment of hazardous waste that was not a universal waste, did the SQUWH immediately notify Ohio EPA? [3745-273-18(G)]		Yes ☐ No ☐ N/A ☒

EXPORTS

NOTE: Small quantity handlers that export waste to the countries listed in 40 CFR 262.58(a)(1) are subject to 40 CFR 262 subpart H. Small quantity handlers that export waste to a foreign destination other than the countries listed in 40 CFR 262.58(a)(1) are subject to 40 CFR 262.53, 40 CFR 262.56(a)(1) to (a)(4), (a)(6), and (b), 40 CFR 262.57, and 40 CFR 262 subpart E. [3745-273-20]

NOTE: Violations regarding exporting universal waste to foreign destinations should be referred to U.S. EPA Region 5 because the federal counterpart provisions are not delegable to states.

USED OIL INSPECTION CHECKLIST
GENERATORS, COLLECTION CENTERS AND AGGREGATION POINTS

NOTE: 1. A facility is subject to the federal SPCC regulations (40 CFR 112) if it is non-transportation related (e.g., fixed) and has an aggregate above ground storage capacity greater than 1,320 gallons or a total underground storage capacity greater than 42,000 gallons of oil (including used oil), and there is reasonable expectation of a discharge to navigable waters.
2. Inspectors can check BUSTR's web-site at https://www.comapps.ohio.gov/sfm/fire_apps/bust/bustr/PublicInquiry.asp to determine if a UST containing used oil is registered with BUSTR. Inspectors may call BUSTR at 614-752-7938 or a BUSTR site coordinator to report an unregistered UST or a UST that appears to not be in compliance with BUSTR regulations. A list of BUSTR coordinators by county are at: https://www.comapps.ohio.gov/sfm/fire_apps/bust/bustr/SearchByCounty.asp.

PROHIBITIONS			
1.	Does the generator manage used oil in a surface impoundment or waste pile? If yes:		Yes ☐ No ☒ N/A ☐
	a.	Is the surface impoundment or waste pile regulated as a hazardous waste management unit? [3745-279-12(A)]	Yes ☐ No ☐ N/A ☒
NOTE: For example, used oil contaminated scrap metal stored in a pile.			
2.	Is used oil used as a dust suppressant? [3745-279-12(B)]		Yes ☐ No ☒ N/A ☐
3.	Is off-specification used oil fuel burned for energy recovery in devices specified in 3745-279-12(C)?		Yes ☐ No ☐ N/A ☒
NOTE: Multiple used oil checklists may be applicable if used oil handler is performing multiple tasks (e.g., If generating used oil and shipping directly to a burner, complete generator and marketer checklists at a minimum).			
GENERATOR STANDARDS			
4.	Does the generator mix hazardous waste with used oil? If so,		Yes ☐ No ☒ N/A ☐
	a.	Is the mixture managed as specified in 3745-279-10(B)? [3745-279-21(A)]	Yes ☐ No ☐ N/A ☒
NOTE: Used Oil mixed with listed (3745-51-30 to 3745-51-35) or characteristic (3745-51-20 to 3745-51-24) hazardous waste are subject to regulation as a hazardous waste, unless the listed hazardous waste is listed solely because it exhibits a hazardous characteristic, and the resultant mixtures do not exhibit a characteristic. Mixtures of used oil and CESQG hazardous waste are subject to OAC Chapter 3745-279.			
5.	Does the generator of a used oil containing greater than 1,000 ppm total halogens manage the used oil as a hazardous waste unless the presumption is rebutted successfully? [3745-279-21(B)]		Yes ☐ No ☐ N/A ☒
NOTE: If used oil contains greater than 1000 ppm total halogens, it is presumed to be listed hazardous waste until the presumption is successfully rebutted.			
6.	Does the generator store used oil in tanks; or containers; or a unit(s) subject to regulation as a hazardous waste management unit? [3745-279-22(A)]		Yes ☒ No ☐ N/A ☐
7.	Are containers and aboveground tanks used to store used oil in good condition with no visible leaks? [3745-279-22(B)]		Yes ☒ No ☐ N/A ☐
8.	Are containers, above ground tanks, and fill pipes used for underground tanks clearly labeled or marked "Used Oil?" [3745-279-22(C)]		Yes ☒ No ☐ N/A ☐

9.	Has the generator, upon detection of a release of used oil, done the following: [3745-279-22(D)]		Yes ☐ No ☐ N/A ☒
	a.	Stopped the release?	Yes ☐ No ☐ N/A ☒
	b.	Contained the release?	Yes ☐ No ☐ N/A ☒
	c.	Cleaned up and properly managed the used oil and other materials?	Yes ☐ No ☐ N/A ☒
	d.	Repaired or replaced the containers or tanks prior to returning them to service, if necessary?	Yes ☐ No ☐ N/A ☒
ON-SITE BURNING IN SPACE HEATER			
10.	Does the generator burn used oil in used-oil fired space heaters? [3745-279-23] If so:		No
	a.	Does the heater burn only used oil that owner/operator generates or used oil received from household do-it-yourself (DIY) used oil generators?	Yes ☐ No ☐ N/A ☒
	b.	Is the heater designed to have a maximum capacity of not more that 0.5 million BTU per hour?	Yes ☐ No ☐ N/A ☒
	c.	Are the combustion gases from heater vented to the ambient air?	Yes ☐ No ☐ N/A ☒
NOTE: Ash accumulated in a space heater must be managed in accordance with 3745-279-10(E).			
GENERATOR TRANSPORTATION			
11.	Does the generator have the used oil hauled only by transporters that have obtained a U.S. EPA ID#? [3745-279-24]		Yes ☒ No ☐ N/A ☐
12.	If the generator self-transports used oil to an approved collection site or to an aggregation point owned by the generator: [3745-279-24]		
	a.	Does the generator transport used oil in a vehicle owned by the generator or an employee of the generator? [3745-279-24]	Yes ☐ No ☐ N/A ☒
	b.	Does the generator transport more than 55 gallons of used oil at any time? [3745-279-24]	Yes ☐ No ☐ N/A ☒
NOTE: Used oil generators may arrange for used oil to be transported by a transporter without a U.S. EPA ID # if the used oil is reclaimed under a contractual agreement (i.e., tolling arrangement).			
COLLECTION CENTERS AND AGGREGATION POINTS			
13.	Is the DIY used oil collection center in compliance with the generator standards in 3745-279-20 to 3745-279-24? [3745-279-30]		Yes ☐ No ☐ N/A ☒
14.	Is the non-DIY used oil collection center registered with Ohio EPA? [3745-279-31]		Yes ☐ No ☐ N/A ☒
15.	Is the used oil aggregation point in compliance with the generator standards in 3745-279-20 to 3745-279-24? [3745-279-32]		Yes ☐ No ☐ N/A ☒
NOTE: Complete Used Oil Generator and any other applicable used oil handler checklist (e.g., marketer, burner, etc.) for used oil collection centers and aggregation points.			

Appendix C

Documents received during the Inspection:

- Cleveland West Facility Diagram (marked)
- Training Record Table
- Warehouse Department Position Descriptions
- Waste Material Profile Sheet for Amine Sulfates
- Attendant documentation for Manifest 006745544FLE
- HAZWOPER Awareness training presentation (slides)

Inspection Date:
March 19, 2015

Facility Name and ID Number:
Aurora Medical Center - Grafton
EPA ID: WIR000138859

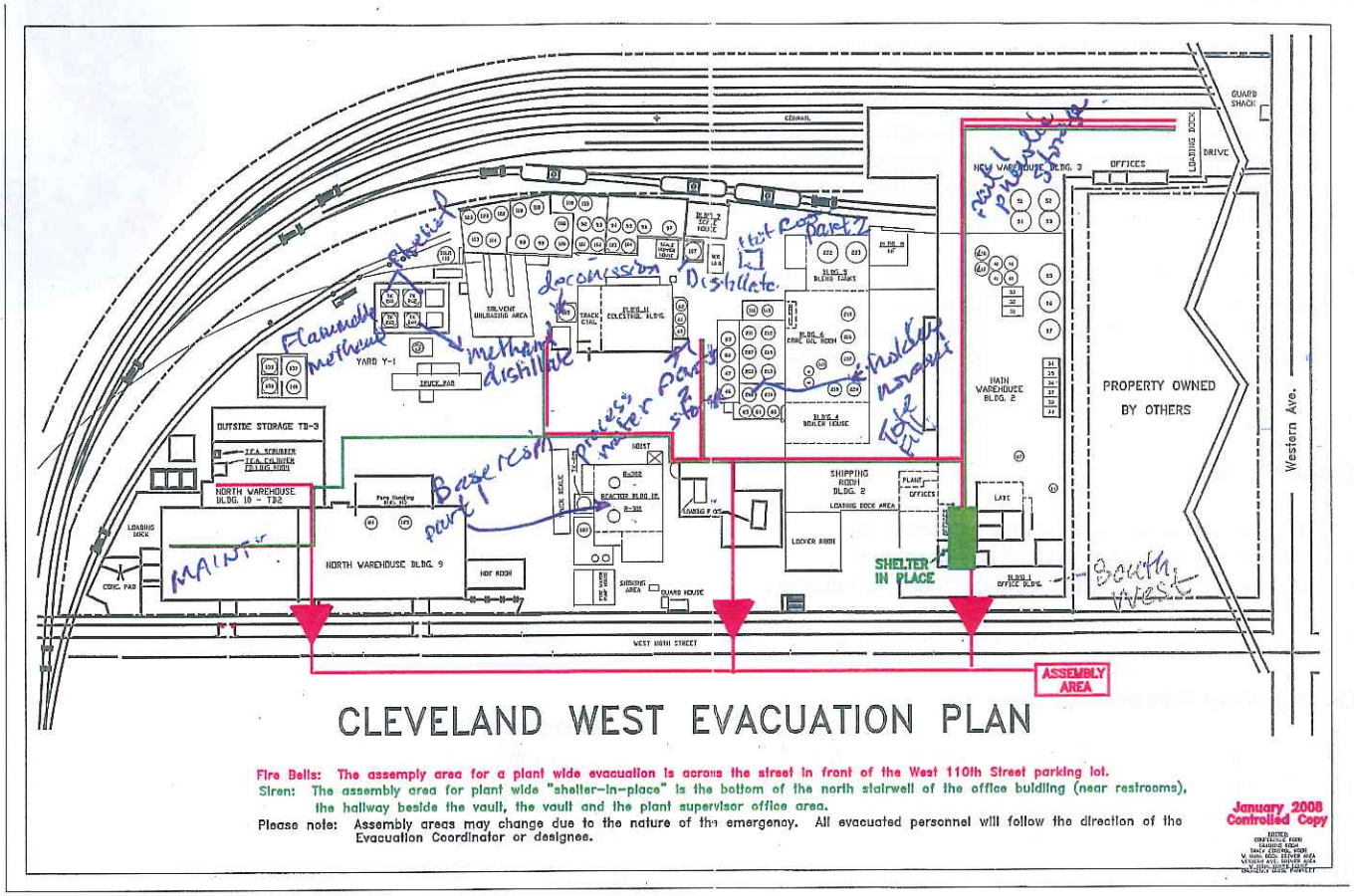
Inspector:
Brenda Whitney
Compliance Section 2
RCRA Branch
Land and Chemicals Division

ASK Chemicals CW Safety Rules

Visitors, Contractors and Truck Drivers

- All contractors/visitors are required to sign in at the guard house or front office upon entering the plant and must sign out when they leave the plant (this includes lunch).
- Vehicle access to the plant must be approved. Parking is on W. 110th St. across the street from the office entrance.
- Smoking permitted in designated areas only - please ask for the closest location.
- No food is allowed in the plant. It is restricted to offices, picnic area, control rooms, break rooms and locker rooms.
- Do not operate any equipment or handle any chemicals without permission.
- Please observe all warning and caution signs.
- Remain alert to movement of Fork Trucks, Hoists & truck traffic both inside & outside the buildings of the facility.
- Do not enter roped off or barricaded areas without authorization from an ASK Chemicals supervisor.
- Everyone is required to comply with the facility Lockout/Tagout program.
- Do not consume, store, sell or work under the influence of alcohol or illegal drugs
- Cell phone use is restricted, see supervisory staff or plant contact for authorized areas.
- Firearms are strictly prohibited
- Hard hats & safety glasses are required in all plant areas.

Cleveland West Facility Diagram



Visitors and Truck Drivers

- Safety glasses and hard hats are required in plant areas.

Contractors

- Must complete ASK Chemicals' Safety Training Program.
- Safety glasses, hard hats and steel toed shoes are required at all times when performing work in the plant.
- No open ended piping is permitted when connected to a process. All piping must be terminated by a cap, blind flange or valve before leaving at the end of the day.
- Hot work permits are required for any work that generates heat, sparks, or flame on the site.
- Confined space entry permits are required for entry into any space covered by OSHA's Confined Space Entry Standard.
- Must observe all plant safety rules.

Truck Drivers

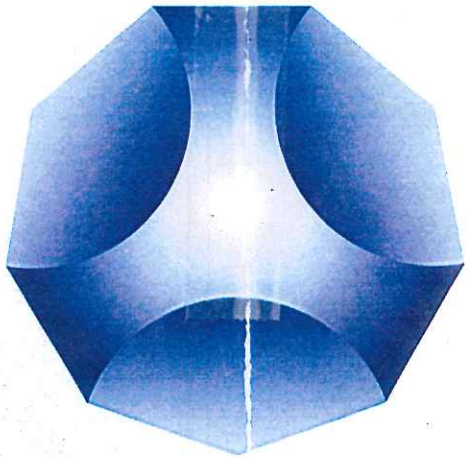
- Must remain a safe distance from operations.
- Wll provide assistance only when requested.
- Drivers are not permitted in the dock area unless performing specific required tasks.
- No transactions are permitted through dock doors

Emergency Response

For the safety and well being of all visitors, contractors and truck drivers, please be aware of the appropriate actions to take for the following emergencies

In case of...

- System Test (Short duration bell) - Prior to test, announcement will be made and no action is necessary.
- Fire Alarm (Long duration bell) - Proceed to nearest exit and go to assembly point.
- Process Alarm (Long duration siren) - Proceed to area designated "Shelter In Place" and wait for further instructions.
- Severe Weather (Intermittent siren) - Proceed to area designated "Shelter In Place" and wait for further instruction



Safety Manual

Safety Rules and Regulations

(Cleveland West Facility)

ASK Chemicals L. P.
Cleveland West Plant
2191 W. 110 St.
Phone: 1.216.961.4690
Fax: 1.216.961.2865
Website: www.ask-chemicals.com

ASKCHEMICALS
We advance your casting

ASKCHEMICALS
We advance your casting

Column1	Status	Completion Date	Score	Column10	Provider	Media	Supervisor	Supervisor Em
Daff , Richard A.(000198232)	Complete	1/8/15 10:44 AM	100	RCRA Part 1	PureSafety	Online	Helmick, Randy C.	000063424
Daff , Richard A.(000198232)	Complete	1/8/15 11:11 AM	90	RCRA Part 2	PureSafety	Online	Helmick, Randy C.	000063424
Blackwell , Frank(000343293)	Complete	7/14/14 4:44 PM	100	RCRA Part 2	PureSafety	Online	Daff, Richard A.	000198232
Blackwell , Frank(000343293)	Complete	7/14/14 4:50 PM	80	RCRA Part 1	PureSafety	Online	Daff, Richard A.	000198232
Mural , John(000259146)	Complete	5/22/15 8:42 AM	87	RCRA Part 1	PureSafety	Online	Daff, Richard A.	000198232
Mural , John(000259146)	Complete	5/26/15 7:47 AM	100	RCRA Part 2	PureSafety	Online	Daff, Richard A.	000198232

Warehouse Department Position Descriptions

Responsibilities and Authorities	Plant Ops Manager	Supv.	Oper	Prod Sched	Prod Asst	Cont Coord
Establish overall department objectives.	X	Z	Z			
Correct findings identified on internal audits of the quality or environmental system.	Y	X	Z			
Provide resources to assure conformance to internal and external requirements.	X					
Approve department equipment upgrades.	X	Z				
Provide training for employees.	Y	X				
Enforce general plant rules along with attendance program.	Y	X				
Enforce plant safety rules.	Y	X				
Reserve right to change personnel to unscheduled duties as necessary.	Y	X				
Hold periodic department meetings.	Y	X				
Assure that the plant operations manual procedures are being followed.	Y	X				
Order non-inventory items.	Y	Z			X	Z
Investigate incidents of customer dissatisfaction as identified through the Customer Complaint System	X	Z				
Update/create POM Procedures as identified during internal audits or by other personnel.	Y	X	Z			
Submit time sheets for weekly payroll.	Y	X				
Train Warehouse Department personnel in new job functions.	Y	X				
Attend daily production meetings.	Y	X		X	X	X
Make labels for packaging runs.		Y	X			Z
Maintain a clean work area.		Y	X			
Complete packaging *process orders properly.		Y	X			
Maintain organization of the warehouse.		Y	X			
Package material according to the applicable Plant Operations Manual procedures.		Y	X			
Generate packaging *process orders.	Y	Z		X		
Distribute packaging *process orders as needed.	Y	X		X		
Generate Packaging Priority List	Y	X		X		X
Inform supervisor of inventory problems		Y	X			
Coordinate equipment repair with maintenance department.	Y	X		Z		
Coordinate resolution of availability problems or inventory problems.	Y	X		X		

X: Primary Responsilbility Y: Supervisory Function Z: Support Function

Warehouse Department Position Descriptions

Responsibilities and Authorities	Plant Ops Manager	Supv.	Oper	Prod Sched	Prod Asst	Cont Coord
Investigate incidents of non-conforming product and document the results of the investigation.	Y	Z	Z			
Participate in continuous improvement efforts in the areas of safety, quality, environmental, and productivity.	X	X	X	X	X	X
Properly manage universal wastes (radio batteries)	X	X	X	X	X	X
Properly label and handle hazardous waste as it is generated.	Z	Y	X	Z		Z
Properly label with the accumulation start date when the hazardous waste drum is full and notify supervisor.	Z	Y	X	Z		Z
Weigh and prepare waste drum for shipment as needed.	Z	Y	X	Z		Z
Monitor waste shipment preparation and loading if EHS&S manager is absent	Y					X
Maintain waste Manifiests, profile sheets and weekly inspection sheets if EHS&S manager is absent	Y					X

X: Primary Responsilbility Y: Supervisory Function Z: Support Function

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH974751

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *OHD076751320* GENERATOR NAME: *ASK Chemicals LP*

GENERATOR CODE (Assigned by Clean Harbors) *AS0147* CITY *Cleveland* STATE/PROVINCE *OH* ZIP/POSTAL CODE *44102*

ADDRESS *2191 West 110th Street* PHONE: (216) 961-2723

CUSTOMER CODE (Assigned by Clean Harbors) *AS0147* CUSTOMER NAME: *ASK Chemicals LP*

ADDRESS *2191 West 110th Street* CITY *Cleveland* STATE/PROVINCE *OH* ZIP/POSTAL CODE *44102*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *Amine Sulfates*

PROCESS GENERATING WASTE: process waste

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? No

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- [x] LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
- % FREE LIQUID
- % SETTLED SOLID
- % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS

[x] 1 2 3

% BY VOLUME (Approx.)

TOP *0.00*

MIDDLE *0.00*

BOTTOM *0.00*

VISCOSITY (If liquid present)
- [x] 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR

clear

ODOR
- NONE
- [x] MILD
- STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- [x] 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- > 200 (>93)

TOTAL ORGANIC CARBON
- <= 1%
- 1-9%
- [x] >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- [x] > 200 (>93)

pH
- <= 2
- [x] 2.1 - 6.9
- 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- [x] 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- < 2,000 (<4.6)
- [x] 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
DIMETHYLETHANOLAMINE	0.0000000	--	17.0000000	%
DIMETHYLISOPROPYL AMMONIUM SULFATE	30.0000000	--	50.0000000	%
DIMETHYLISOPROPYLAMINE	0.0000000	--	66.0000000	%
DIMETHYLOLPROPIONIC ACID	0.0000000	--	14.0000000	%
SULFURIC ACID	5.0000000	--	10.0000000	%
TEA	0.0000000	--	3.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G09* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W219*

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE
< 1000 PPM
>= 1000 PPM

PCBs

☑ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

CleanHarbors

Clean Harbors Profile No. CH974751

F. REGULATORY STATUS

YES ☑ NO USEPA HAZARDOUS WASTE?

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code: *outs2191*

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES ☑ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: *Not subject to LDR*
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES ☑ NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? _____ Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

UN1760, CORROSIVE LIQUIDS, N.O.S., (DIMETHYLISOPROPYLAMINE,SULFERIC ACID), 8, PG III

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY ☑ MONTHLY QUARTERLY YEARLY OTHER

☑ **CONTAINERIZED**

0-10 CONTAINERS/SHIPMENT

STORAGE CAPACITY: *550*

CONTAINER TYPE:

CUBIC YARD BOX PALLET

☑ TOTE TANK DRUM

OTHER:

DRUM SIZE:

BULK LIQUID

GALLONS/SHIPMENT: *0 Min -0 Max* GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: *0 Min - 0 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
joan.tomazic@ask-chemicals.com			

This waste profile has been submitted using Clean Harbors' electronic signature system.

*40 CFR Sec. 264.12 required notice:

As required by Federal Resource Conservation and Recovery Act regulations found in 40 CFR Part 264.12(b) and all equivalent State hazardous waste regulations, notice is hereby provided that all Clean Harbors facilities that may be used to treat, store, and /or dispose of the hazardous waste described on this waste profile have the appropriate permits and the capacity to manage these wastes.

Please note this profile must be submitted for re-evaluation if there has been a change in the waste generating process or when there have been changes in the chemical composition or physical characteristics of the material.

Clean Harbors Env. Services, Inc.
2900 Rockefeller Avenue
Cleveland, Ohio 44115

216-429-2401
216-429-2402
www.cleanharbors.com

February 28, 2014

Mr. Steve Henson
ASK Chemicals
2191 West 110th Street
Cleveland, OH 44102

Manifest Section
Clean Harbors Canada, Inc.
4090 Telfer Road RR#1
Corunna, ON N0N 1G0

RE: Manifest Discrepancy Correction
Manifest 006745544FLE, ASK Chmeicals

Dear Sir or Madam:

Please find enclosed, a corrected copy of manifest document 006745544FLE. Section 1, Generator ID Number should read "OHD076751320" instead of "OHCESQG" in said section. Please update your records to reflect the correct information.

Should you have any questions regarding this letter, please contact me at (216) 857-2227.

Sincerely,

Susan Sevy
Environmental Compliance Manager, Clean Harbors

Enclosure

CC: facility file

057518200 SC PPW 3/3/2011

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	OHCESOG	1	(800) 483-3718	006745544 FLE

5. Generator's Name and Mailing Address
ASK Chemicals LP
2191 West 110th Street
Cleveland, OH 44102
Generator's Phone: (216) 961-2723

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name
Clean Harbors Environmental Services Inc
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Canada Inc
4090 Telfer Road RR #1
Corunna, ON N0N 1G0
Facility's Phone: (519) 864-1021
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3266, WASTE CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE), 8, PG II	001	TT	42220	P	D002
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
AOC# 5102/16E/13 CN# AQ06039-3
1.CH6586698 ERG#154
CHEST, EPAID NO.MIR 000014530,IS ACTING AS THE PRIMARY EXPORTER ON BEHALF OF THE GENERATOR.
#331

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: JOAN TOMAZIC
Signature: Joan Tomazic
Month: 08 Day: 06 Year: 13

16. International Shipments: ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: PORT HURON MI
Transporter signature (for exports only): Bradley M Shaffer Date leaving U.S.: 8-6-13

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: BRADLEY M SHAFFER
Signature: Bradley M Shaffer
Month: 08 Day: 06 Year: 13

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

18. Discrepancy

18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
section I should read OHD076751320.
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Nicole Bran
Signature: Nicole Bran
Month: 08 Day: 16 Year:

GENERATOR — TRANSPORTER INT'L — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport. [illegible]

AQ06029-3

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste
[illegible] 3/3/2021
[illegible]

A Generator / consignor — Producteur / expéditeur

[illegible] (circled handwritten mark)

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial (1): [illegible]

Company name / Nom de l'entreprise: Clean Harbors Environmental Services Inc

Mailing address / Adresse postale: [illegible] Highway — City / Ville: [illegible] — Province: MI — Postal code / Code postal: [illegible]

E-mail / Courrier électronique: Schmerl.Amanda@[illegible] — Tel. No. / N° de tél.: [illegible] 716-2700

Shipping site address / Adresse du lieu de l'expédition: [illegible] Highway

City / Ville: [illegible] — Province: MI — Postal code / Code postal: [illegible]

Intended Receiver / consignee — Réceptionnaire / destinataire prévu (2): Clean Harbors Canada Inc
Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial: [illegible]

Mailing address / Adresse postale: 4090 Telfer Road RR #1 — City / Ville: Corunna — Province: ON — Postal code / Code postal: N0N 1G0

E-mail / Courrier électronique: Butler.Amanda@cleanharbors.com — Tel. No. / N° de tél.: 519, 864-1021

Receiving site address / Adresse du lieu de destination: 4090 Telfer Road RR #1

City / Ville: Corunna — Province: ON — Postal code / Code postal: N0N 1G0

B Carrier — Transporteur

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial (23): [illegible]

Company name / Nom de l'entreprise: Clean Harbors Environmental Services Inc

Mailing address / Adresse postale: 42 Longwater Drive — City / Ville: Norwell — Province: MA — Postal code / Code postal: 02061

E-mail / Courrier électronique: N/A — Tel. No. / N° de tél.: 781, 792-5000

Vehicle / Véhicule — Registration No. / N° d'immatriculation — Prov. (24)
Trailer - Rail car No. 1 / 1re remorque - wagon: 2435186 — ME
Trailer - Rail car No. 2 / 2e remorque - wagon:

Port of entry / Point d'entrée — International use only: SARNIA, ON
Port of exit / Point de sortie — International use only (25)

Carrier Certification: I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. (26)
Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie): BRADLEY M SHAFFER — Tel. No. / N° de tél.: 781, 792-5000

Year / Année: 13 — Month / Mois: 08 — Day / Jour: 06 — Signature: [signature]

C Receiver / consignee — Réceptionnaire / destinataire

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés (27): 006845544FLE

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial (28): A031826 B

Receiver / consignee information same as in Part A / Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A
☑ Yes / Oui ☐ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise — Mailing address / Adresse postale — City / Ville — Province — Postal code / Code postal — E-mail / Courrier électronique — Tel. No. / N° de tél.:
CLEAN HARBORS CANADA INC.
R.R. #1, 4090 TELFER ROAD
CORUNNA, ONTARIO N0N 1G0
519-864-1021

Receiving site address / Adresse du lieu de destination: Same

Date received / Date de réception (29): Year / Année: 13 — Month / Mois: 08 — Day / Jour: 07 — Time / Heure: TBD ☑ A.M. ☐ P.M.

If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire (30) — Registration No. / Provincial ID No., N° d'immatriculation/d'id provincial:

	Prov. code / Code prov. (3)	Shipping name / Appellation réglementaire (4)	Class / Classe, Sub. class(es) / Classe(s) sub. (5)	UN No. / N° NU (6)	Packing / risk gr. / Gr. d'emballage / de risque (7)	Quantity shipped / Quantité expédiée	Units L or / ou Kg / Unités (8)	Packaging / Contenant No. / N° (9)	Codes int.-ext.	Phys. state / État phys. (10)	Quantity received / Quantité reçue	Units L or / ou kg / Unités (31)	Comments / Commentaires (32)	Handling Code / Code de manutention (33)	Shipment / Envoi Accepted / Accepté (34)	Refused / Refusé	Decont. Pack. Cont. (35)	Veh. / Véh.
(i)	[illegible]	WASTE CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., ([illegible] hydroxide)	8	UN3266	II	EST 17450	Kg	01	02	L 41	19750	KG	Please see attached for manifest weight variance explanation	08	YES		NO	NC
(ii)	1223 (Ⓐ)																	
(iii)																		
(iv)														NAB				

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) (36)

	Notice No. / N° de notification (11)	Notice Line No / N° de ligne de la notification	Shipment / Envoi (12)	Of / De	D or R code / Code E ou R (13)	C code / Code C (14)	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE (15)	H code / Code H (16)	Y code / Code Y (17)	National code in country of / Code du pays — Export / Exportation (18)	Import / Importation	Customs code(s) / Code(s) de douanes (19)
(i)	[illegible]	23	1	300	D10	C[illegible]	A4090	H8	Y35	N/A	HN24	3825.[illegible].00.00
(ii)												
(iii)	International use only											
(iv)												[illegible] 716-2700

Generator / consignor certification: I certify that the information contained in Part A is correct and complete.
Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets.
Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie): Amanda Schmerl — Signature: [signature] Ⓐ Chau — Tel. No. / N° de tél. (20): 8107152700

Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. / Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets. (37)
Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie): Nicole Bain
Signature: [signature] — Tel. No. / N° de tél.: 5198641021

Special handling / Manutention spéciale (22): ☐ Attached / Ci-joint ☒ As follows / Ci-contre: [illegible]

Date shipped / Date d'expédition (21): Year / Année: 13 — Month / Mois: 08 — Day / Jour: 06 — Time / Heure: ☐ A.M. ☒ P.M. 4:05
Scheduled arrival date / Date d'arrivée prévue: Year / Année: 13 — Month / Mois: 08 — Day / Jour: 06

MOE 04-1917 (07/07)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 3 (yellow / jaune

CleanHarbors
ENVIRONMENTAL SERVICES®

Land Disposal Restriction Notification Form

Printed Date :Aug 05, 2013

MANIFEST INFORMATION

Generator : ASK Chemicals LP

Address: 2191 West 110th Street
Cleveland,OH 44102

EPA ID #: O H C E S Q G

Manifest Tracking Info.
006745544FLE

Sales Order No: D57518200

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH653669B	WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D002	Corrosive Characteristic

Certification	Applies to Manifest Line Items
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.	1.

Waste analysis data, where available, is attached.

Signature : [signature] Print Name DAVID W. STERLING

Title : TRUCK Date : 08-06-13

ASKCHEMICALS
We advance your casting

HAZWOPER AWARENESS

ASK Chemicals, Cleveland West October 30, 2014

1

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Regulatory Agencies

Environmental laws are implemented through regulations.

Major federal regulatory agencies:

- Environmental Protection Agency (EPA)
- Occupational Safety and Health Administration (OSHA)
- Department of Transportation (DOT)

2

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Complying with Regulations

ASK Chemicals compliance with environmental regulations is monitored and implemented through the following:

- Government inspections
- Reporting and permitting requirements
- Enforcement of violations
- Citizen suits
- Past events
- Audits

3

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Penalties

Facilities and individuals can be fined and/or sentenced to jail for violations of these laws and regulations.

4

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Major Regulations on Hazardous Chemicals

OSHA 1910.1200 – Hazard Communication Standard

OSHA 1910.120 – Hazardous Waste Operations and Emergency Response (Hazwoper)

Operations Covered by OSHA 1910.120 "Hazwoper"

- Hazardous waste cleanup operations
- RCRA treatment, storage and disposal (TSD) operations
- Emergency response operations

5

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OSHA 1910.120 Requirements

Emergency response plan

Emergency response procedures

Training

Other requirements:

- A written safety and health program for the facility
- Hazardous Waste Site evaluation
- Site control measures
- Engineering controls, work practices, and personal protective equipment program as appropriate
- Medical surveillance program, as needed
- Monitoring, as needed

6

Medical Surveillance

Periodic physical exams

Could include those persons who are or may be exposed to hazardous materials above permissible limits, use a respirator, have become ill due to exposure, or who are on a Hazmat team.

Training Requirements

Persons who work at hazardous waste sites or who are expected to respond to hazardous substance emergencies must receive initial and annual refresher training.

Emergency Response Roles

Emergency response roles are:

First Responder Awareness Level (your role)

First Responder Operations Level

Hazardous Materials Technician/ Specialist

On Scene Incident Commander

Material Safety Data Sheet (MSDS)

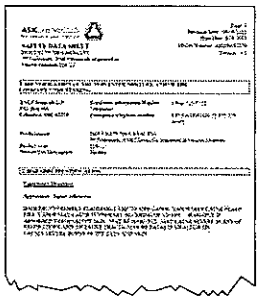
GHS – Now called SDS

Provide information on …

Basic chemical properties

How the chemical impacts emergency response

Implications of exposure to the chemical



SDS – Sixteen Section Format

Section 1 – Chemical Product and Company Identification

Section 2 – Composition/ Information on Ingredients

Section 3 – Hazards Identification

Section 4 – First Aid Measures

Section 5 – Fire Fighting Measures

Section 6 – Accidental Release Measures

Section 7 – Handling and Storage

Section 8 - Exposure Controls / Personal Protection

SDS – Sixteen Section Format, cont.

Section 9 – Physical and Chemical Properties

Section 10 – Stability and Reactivity

Section 11 – Toxicological Information

Section 12 – Ecological Information

Section 13 – Disposal Considerations

Section 14 – Transportation Information

Section 15 – Regulatory Information

Section 16 – Miscellaneous Information

Hazardous Materials Definition

For the purposes of this training, a hazardous material is a substance that is capable of producing adverse effects.

Hazardous materials come in different classes, for example:

- Flammable
- Explosive
- Corrosive
- Toxic
- etc.

Material Physical States

Solid

Gas

Liquid

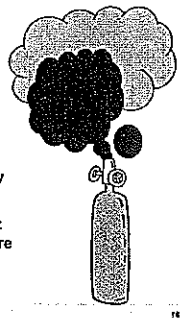
Typical Properties of Solids

Solids tend to hold their form without support. In general

- Flammable solids ignite when the ignition temperature is reached.
- Toxic solids have great difficulty gaining access to the body.
- Solids in the environment can be easily collected and contained.
- Solids are less hazardous than gases or liquids, unless powdered.

Typical Properties of Gases

All gases expand uniformly to occupy whatever space is available, whether large or small. In general



- Gases are more hazardous than liquids or solids.
- Flammable gases ignite quite easily.
- Toxic gases can gain access to the body by inhalation.
- Gases in the environment are more difficult to contain than solids or liquids, but they are more easily dispersed.

Typical Properties of Liquids

Liquids flow freely and take the shape of their container. In general

- Liquids are more hazardous than solids.
- Flammable liquids ignite easily only when vaporized.
- Toxic liquids can be absorbed by the skin if splashed or spilled and can be inhaled only when vaporized.
- Liquids can sink, float, or dissolve in water.
- Liquids can be very hot (boiling water, 212°F) or very cold (boiling liquid nitrogen, -320°F), and thus can cause burning or freezing.
- Liquids in the environment can be collected, contained, or absorbed if insoluble and can be dispersed if soluble.

Density of Vapor or Gas

The density of a gas in relation to the density of air is called vapor density.

- If < 1, it is lighter than air
- If > 1, it is heavier than air

The density of a vapor or gas indicates its tendency to rise in air and dissipate or sink in air and collect in low lying areas.

Specific Gravity

$$\text{Specific Gravity} = \frac{\text{Weight of Liquid}}{\text{Weight of an Equal Volume of Water}}$$

If < 1, floats on water

If > 1, sinks in water

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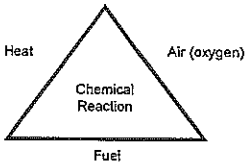
Fire Tetrahedron

A fire can result when all these are present (in the right mixture):



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Explosive Limits

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Flammable gases and vapors of flammable liquids will ignite in air when they are exposed to an ignition source.

Explosive Limits (gas, vapor)

- Lower Explosive Limit (LEL) – Minimum concentration below which a substance will not burn.
- Upper Explosive Limit (UEL) – Maximum concentration above which a substance will not burn.

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Flash Point – The minimum temperature that a liquid must reach to produce an ignitable concentration of vapor.

- Liquids having a flash point below 100°F are considered by the U.S. DOT to be flammable liquids.

- Liquids having a flash point at or above 100°F and below 200°F are considered by the DOT to be combustible

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Most Dangerous Substances

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The most dangerous flammable substances are those that:

- Have a low Lower Explosive Limit (LEL) and a wide flammable range
- Easily ignited (pyrophorics)

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Flammable Solids

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A Flammable Solid is one that can be ignited by friction or by spontaneous chemical reaction with moisture or air.

Ignition Temperature - Temperature that a solid begins to burn

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Corrosives

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Corrosive – Material that can cause deterioration or alteration of metal surfaces or skin tissue at the point of contact.

Reactive

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A reactive material is unstable or reacts to produce potentially harmful conditions (e.g., organic peroxide and oxidizers).

Some material react chemically or physically with water to produce dangerous conditions.

- The most serious hazard caused by water occurs when water participates in a chemical reaction (hydrolysis) – Can produce corrosive, toxic, and flammable materials.

Toxicology

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Toxicity

Hazard

Risk

Safety

A very toxic chemical presents little hazard when used under safe conditions.

How Chemicals Enter the Body

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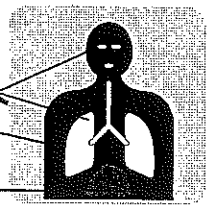
Routes

- Inhalation
- Skin contact, eyes
- Ingestion



Target Organs

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Liver

Kidney

Reproductive System

Lungs

Central Nervous System

Immune System

Skin

Exposure

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Duration of exposure

- Acute (immediate): Burning, itching, upset stomach, dizziness, tears, rashes
- Chronic (long-term): Cancer, lung disease, liver, kidney

Dose/Response Relationship

Dose is the amount of chemical to which one is exposed

Toxicity is related to dose

In all cases, the amount of exposure to a chemical is directly related to the effect on the body (dose/response) and there are levels of exposure that are safe.

Threshold Level – The highest amount of chemical to which an animal or human can be exposed with no resulting adverse effects.

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Threshold Limit Values (TLV's)

Time-Weighted Average (TLV-TWA) – The time-weighted average concentration for a normal 8-hour workday or 40-hour workweek, to which nearly all workers may be repeatedly exposed.

Short Term Exposure Limit (TLV-STEL) – The max concentration to which workers can be exposed for a period of up to 15 mins w/o developing adverse effects

Ceiling (TLV-C) – concentration that should not be exceeded even instantaneously.

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PEL

Exposure limits

- PEL - Permissible Exposure Level
  - Set by OSHA
  - Regulatory level. Citations can be issued
  - Levels of chemical in air above which an employee may not be exposed
  - Solvents are usually measured in parts per million (ppm)

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Factors Affecting Toxicity

Age

Sex

Route of exposure

Combinations of chemicals

- Exposure to two chemicals could cause a toxic effect equal to both combined, or
- Sometimes two different chemicals can cause a toxic effect that is even greater than the sum of the two

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Emergency Recognition: Definition

An emergency is a sudden, unexpected occurrence demanding immediate action.

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Emergency

1. Incident generates a vapor, gas, fume, mist, or dust which causes an obvious overexposure condition, such as individuals experiencing acute health affects (coughing, burning eyes, etc.)
2. Incident has a high probability of resulting in fire or explosion due to proximity of an ignition source.
3. Incident is likely to cause a violent reaction due to incompatibility with surrounding materials.
4. The incident creates a plume, cloud, or smoke which will likely cause a concern in the community.
5. Incident involves a release of material which cannot be, or may not be contained on the property. (i.e. sewers, surface waterways...)
6. The incident occurs when personal protective equipment, tools, equipment, or trained personnel are not present in sufficient quantity.

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Non-Emergency

Specific criteria that can make a release a non-emergency are:

1. None of the Emergency criteria exist
2. Release is absorbed, neutralized, or otherwise controlled by employees in the immediate work area or by maintenance personnel. No potential safety or health hazard.

If there is any doubt the release should be considered an emergency.

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Recognizing Hazardous Materials

Hazardous chemicals can be recognized by the information on their containers such as:

- GHS Labels and Pictograms
- DOT symbols
- NFPA symbols
- ANSI, HMIS and other labels

Other sources of information

- SDS
- Emergency Response Guidebook

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DOT Symbols

DOT - Symbols and Colors used to communicate hazard during transportation

- Labels used on packages
- Placards used on transport vehicles, bulk shipping containers
- Labels and placards differ in size, but generally look similar

Label

Placard

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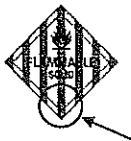
DOT Label vs. Placard

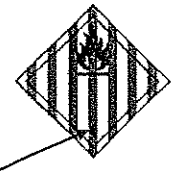
Label (for Packages)

3.9 x 3.9 inches (100mm)

Placard (for Bulk >119 Gal. and Cargo Containers)

10.8 x 10.8 inches (273mm)





Note class number at bottom of both the label and the placard.

40

DOT Hazard Classes

Class 1 – Explosives

Class 2 – Gases

- 2.1 - Flammable Gas
- 2.2 - Non-Flammable, Non-Toxic
- 2.3 - Toxic

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DOT Hazard Classes

Class 3 – Flammable Liquids (and Combustible Liquids)

Class 4

- 4.1 - Flammable Solids
- 4.2 - Spontaneously Combustible Materials
- 4.3 - Dangerous When Wet/Water-Reactive Materials

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DOT Hazard Classes

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Class 5
- 5.1 – Oxidizing substances
- 5.2 – Organic peroxides

Class 6 – Toxic/Poison
- 6.1 – Toxic substances
- 6.2 – Infectious substances

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DOT Hazard Classes

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Class 7 – Radioactive materials

Class 8 – Corrosive substances

Class 9 – Miscellaneous

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DOT Hazard Classes - Placarding

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Note that placards can also consist of the DOT symbol with a set of numbers (UN number) identifying a specific material.

The UN Identification Number identifies the specific proper shipping name of the chemical.

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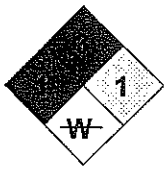
NFPA

National Fire Protection Assn (NFPA)

Uses colors and numbers to communicate type and degree of hazards
- 0 = No Hazard
- 4 = High Hazard
- Blue = Health
- Red = Fire
- Yellow = Reactivity
- White = Special Hazard
- (W with line means keep away from water)



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HMIS Labels

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HMIS = Hazardous Materials Information System

BLUE	Blue = Health information
RED	Red = Flammability information
YELLOW	Yellow = Reactivity information
WHITE (PPE)	White = PPE that should be used.

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GHS PICTOGRAMS

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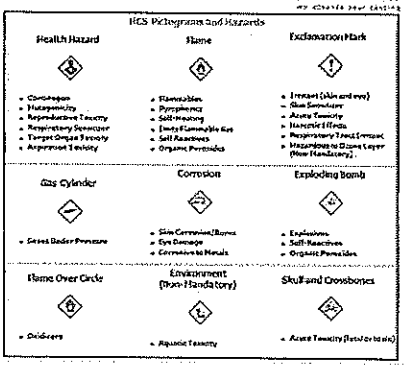

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Emergency Response Guidebook

Can be used to

- Identify material involved in an incident
- Identify hazards of the material

Color-Coded Pages

- Yellow: Materials listed by number – references corresponding guide.
- Blue: Materials listing in alphabetical order – references corresponding guide.
- Orange: Guides – provide information on hazards, public safety, and emergency response information for each material.
- Green: Materials listing by number for isolation/protective distances, and water-reactive materials which produce toxic gas.

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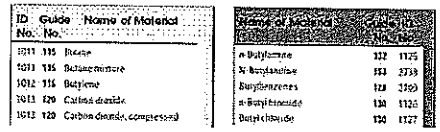
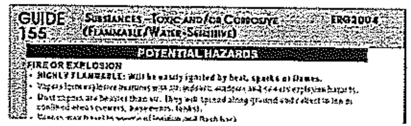
Color-Coded Sections of the Guidebook





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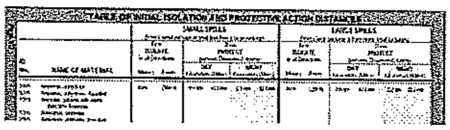
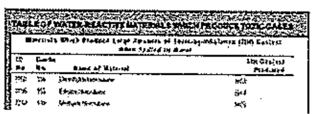
Color-Coded Sections of the Guidebook, cont.





Awareness Role

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Recognize an emergency

Initiate the emergency response plan – contact the communications center of the facility

Secure the area

Ensure that 1-855-ASK4YOU is called

Do <u>NOT</u>

- Rush into the area
- Get near fumes, vapors, smoke, and spills
- Approach area from downwind